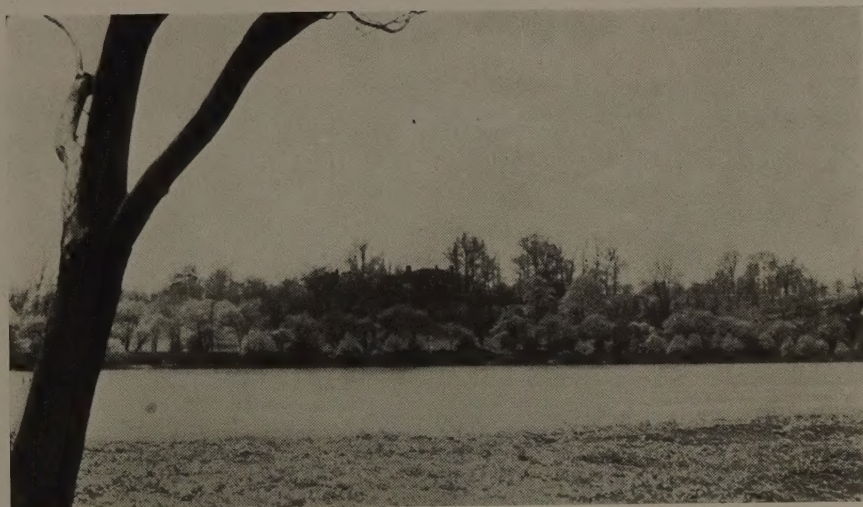


ARCHITECTURE

❖ VOLUME LVI

JULY, 1927

NUMBER I ❖



Looking across the Schuylkill toward Sweet Briar

Philadelphia's Colonial Chain

AN ARCHITECTURAL SEQUENCE OF COUNTRY
HOUSES ALONG THE BANKS OF THE SCHUYL-
KILL, BEING RESTORED AND MADE ACCESSIBLE
BY THE PENNSYLVANIA MUSEUM

By Margaret Lathrop Law

❖❖❖❖❖ **I**N spite of Philadelphia's far-famed adulation of her past, there are to-day many thousands of her citizens who motor daily along the winding River Drive of Fairmount Park and yet do not know that to right and left of them are old houses which show as logically as a students' chart the progressive development of architecture and decoration in young America.

Though Bostonians, Charlestonians, and others proudly insistent on the pedigree and perfection of their early houses will challenge my statement, it is nevertheless true that Philadelphia, alone of all the cities of the thirteen original States, can show on their original sites a series of complete Colonial houses illustrating each phase of the formative periods of American architecture from the founding of the Commonwealth to the War of 1812. The fact that other Northern centres, Boston and New York as well as Plymouth, Salem, and Providence, were settled fifty years earlier, seems at first glance to make this statement seem incredible, but it is true. Unfortunately, fires have wrought havoc in many places, and it is only the fact of their peculiar location in Fairmount Park, and city ownership since the Civil War, that have pre-

served this particular group, in curious fulfilment of Penn's expressed wish that his "checker-board town" with its gardens and orchards and fields "be a greene cuntry town" which will never be burnt and always be wholesome."

These old houses along the banks of the Schuylkill were the homes of transplanted English gentlemen who chose to live in the manorial fashion of old England. Indeed, though Swedes, Germans, and Dutch were hurled into the melting-pot of Philadelphia's early settlement, they have left no imprint of continental influence on her buildings, chiefly because it was the English settlers who held both power and purse-strings. Many of these built in that golden age when Georgian influence, in the heyday of its power in England, was being gratefully taken over by America, and when architecture was considered an essential of every gentleman's education. Many a leisured amateur, with the help of his English builder's reference book, designed his own home, and in fact went even further in producing buildings of no less influence on early architecture than Independence Hall and Christ Church.

So it came about that these houses are, in several

instances, acknowledged the finest of their type and period. Here lived the aristocratic plutocracy (or shall we say the plutocratic aristocracy?) of Philadelphia at a time when that city was the largest and wealthiest and most extravagant city on this side the Atlantic, the centre of much of the nation's social, political, and economic history, the rendezvous of leaders of Old World thought. Within the walls of these old houses

many old houses in Philadelphia and elsewhere which have gone their way to oblivion via house-wrecking companies and junk-heaps, only to be resurrected and enshrined bit by bit with the growing appreciation of Americana.

"The American wing of the Metropolitan Museum in New York, opened in November, 1924," says Doctor Samuel J. Woodhouse, Jr., of the Pennsylvania Mu-



The small, simple house of William Penn, built in 1682 and moved to its present site in 1883, when, probably, the dormer was added

many hours both grave and gay have been spent by the moulders of our nation's early policies.

They are not, it is true, possessed of the peculiar glamour of setting which enhances the charm of the old plantation houses along the James, for the atmosphere of Virginia is inimitable; nor are they marked by the remote formality dominating the patroons of the Netherlands in their houses built on the banks of the Hudson, but they have their own true worth. Besides the advantage of proximity to each other and to the ever-expanding city, they are now near Philadelphia's new and ambitious Art Museum.

Encircled at the edge of the park with all the ugliness and dirt that marks the busy marts of men, these gracious reminders of Philadelphia's past form a sort of oasis in a desert of modernity. In spite of kaleidoscopic changes in the march of industrial and commercial progress, they have been spared the tragic fate of

seum, "has been acclaimed by the nation as the most popular achievement of the museum world. Boston, following the lead of New York, has built a wing to her museum, in which will be shown interiors of old houses which have fallen in the rush of improvements. Philadelphia alone, however, can show not single reassembled rooms but a series of entire houses." It is Doctor Woodhouse who some years ago first conceived the plan of restoring and refurnishing all the houses of the "Colonial Chain," a Herculean task and one demanding generous supplies of time, study, and shekels. A most commendable beginning has been made in the careful and correct rehabilitation of Mount Pleasant Mansion. Though all the other houses do not offer the same possibilities as this one, they will eventually serve a splendid purpose in visualizing the progressive development of our forefathers' mode of living. So simple will be the lesson for the casual visitor that "he

who runs may read," the "run" being made in modern motor over smoothly winding ways, or quite easily on foot from the new Art Museum, to which they will form an invaluable "American Wing."

The old houses stand, with two exceptions, on their original sites, shaded by time-old trees, approached by devious paths, never very far from the ribbon of a river twisting here and there. From first to last they demonstrate the problem of tempering English sources to American materials, settings, and needs, modifying all to Quaker taste for simplicity and directness, freedom from "wanton wiles"

in architecture as in all else. In rambling from one old house of the Chain to another, the architect may make detailed and painstaking study of such special problems as development of doorways and porches, mantels and chimney-pieces, windows and shutters, halls and staircases. The mere beauty-lover may allow himself to be thrilled by symmetry of plan, beauty of proportion, or a certain bit of a certain mantel, and the man with a love for the historic can repopulate each house with puppets of the past.

The first link of the Chain is, logically enough, the small and simple house of William Penn himself, built originally in 1682 as a small and necessary town house to supplement his more pretentious home at Pennsbury. Transplanted from its original site, Letitia Court, in 1883, this house differs radically from the "charter members" of the Schuylkill group in purpose, material, and structure, as well as size. It is a derivative of the English cottage, in contrast to the Colonial development of the great mansion. The heavy moulding of the overhanging gable is indicative of the William and Mary period. As in the best Philadelphia houses from the very beginning, Flemish bond is used in the brick walls. The gable roof, especially popular in Pennsylvania, is here given a lower slope, conforming to that of a pediment, and the lines of the eaves are joined across the gable ends. The bricks are doubtless made in this country, as brickmakers and brick-setters were at this time travelling from place to place. Penn himself writes in 1683: "I have here the canoe of one tree y^e fetches 4 tunns of bricks." Two years later they were more plentiful and in more general use. The windows of the small house have very small panes, and the front door is eight-panelled, in contrast to the later six or four.

This door opens directly into the main room of the house, which in turn communicates with the rear rooms. This doubling of rooms makes the house deeper than it is wide, which is characteristic of the seventeenth century, first used in America about 1680, and prophetic of the new style so soon to come.

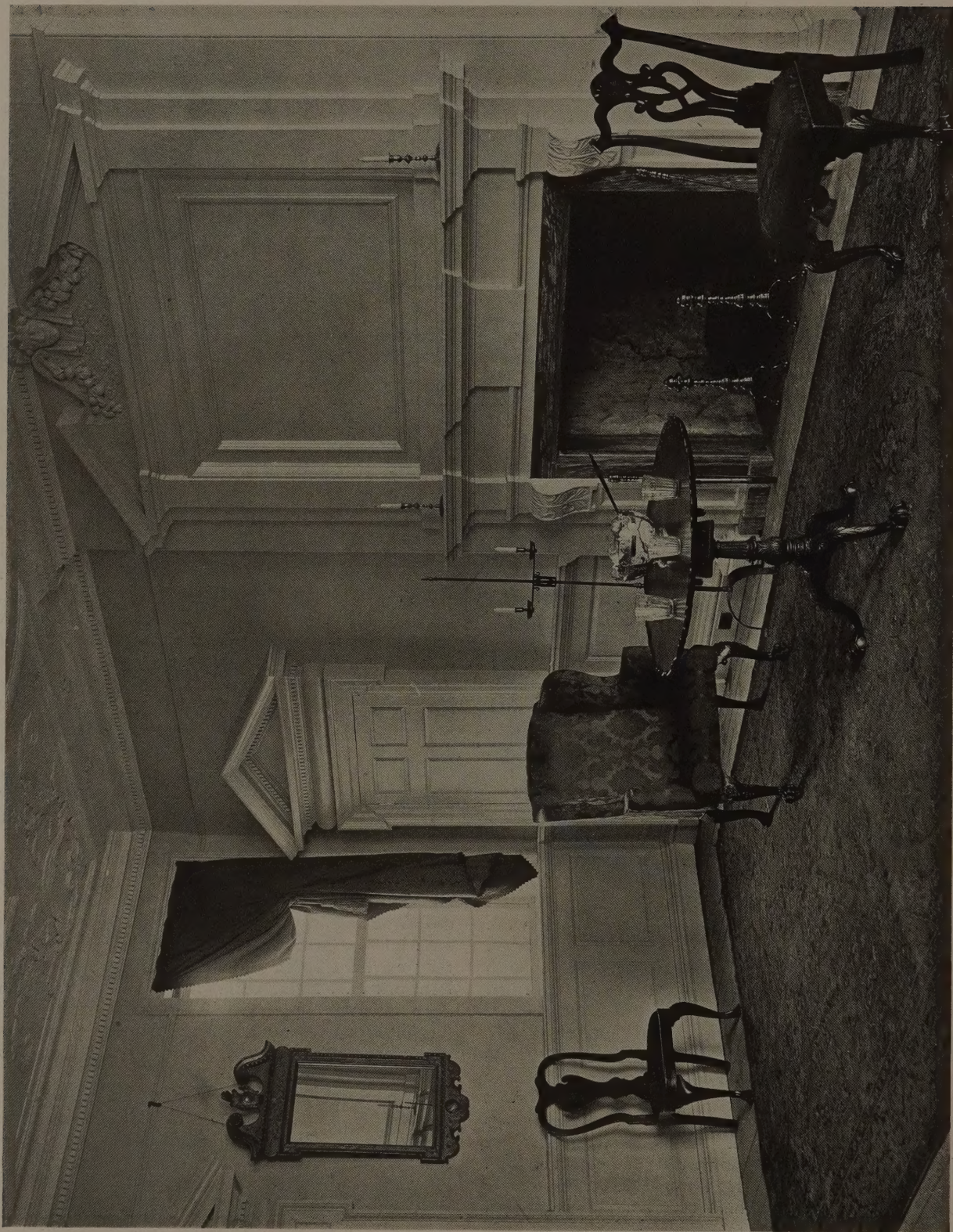


From a water-color drawing of Belmont in 1820-1830. The wing at the left was built in 1744, the main house about 1755

The chimney-piece of the great room of the house is framed by an architrave of heavy bolection moulding with frieze and cornice and is, too, an interesting forerunner of the coming style of panelling. After 1750 most of the Colonial chimney-pieces had special overmantels, a single large panel being framed by an architrave. Penn's is perhaps the oldest true chimney-piece preserved from the Colonies, and was like the sombre Quaker's little fling (in spite of taunts of stricter brethren) in such vanities as shoe-buckles, periwigs, beaver hats, riding togs, and even a well-stocked cellar!

Penn, with good taste and foresight, encouraged both skilled artisans and men of affluence to immigrate to Penn's Woods, and the Carpenters' Company or guild was among the first Philadelphia organizations. As Elizabeth Pennell writes: "It is not necessary to dive into musty archives to unearth the self-evident fact that the early Friends, when they left England, packed up with their liberty of conscience the love of beauty in architecture and, what was more practical, the money to pay for it; that, in a fine period of English architecture they got good English architects . . . to design not merely their public buildings but their private houses; that, their founder setting the example, they carried over in their personal baggage carvings, ironwork . . . furniture and the various details they were not likely to procure in Philadelphia until Philadelphians had moved from their caves and the primeval forest been cut down. . . ." All of which was done with amazing speed.

The second house, chronologically, which stands on the banks of the Schuylkill is Cedar Grove, also a transplanted member of the group, originally built in 1748 in Harrowgate Lane, Frankford, Northern Liberties, then the peaceful country back of a Colonial village, now the noisy manufacturing district of a great city. Since at this writing the work of rebuilding on the new site is still in progress, the house is not illustrated. This house with three generations of Morris family furniture will soon be dedicated to the public. Like the



The Hall at Belmont. The sturdiness of its mouldings and the comparative heaviness of the ceiling plasterwork are unfailing signs of its early period, still influenced by the stately work of the Louis XIV period.

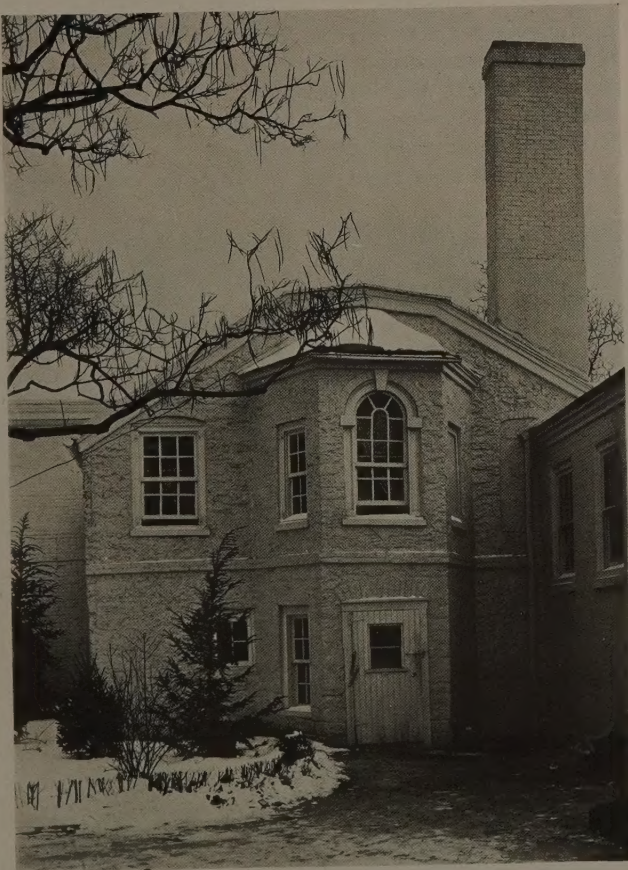
Penn house, it is different in material, structure, and original purpose from any other house in the Chain. Originally it consisted of a small dining-room and one room back of it; above, two small rooms and an attic. It was at that time called a "plantation house," and served only for a day's rest and refreshment at the farm, where it was considered unhealthy to linger overnight on account of the "humours" from the soil, when the owners drove from their town house, five miles distant.

It was in 1790 that the parlor, present kitchen, and rooms above were added; and from that time the place was used as a summer residence. Here many Quaker friends came riding on horseback of a sultry Sunday afternoon; others came in chairs and chaises; Nicholas Waln, in the days of his "godless vanity" actually arriving in a "resplendent yellow chariot."

Belmont, third link of the Chain, had for its most famous owner the charming and brilliant Judge Richard Peters, who "sang the best song, grave or gay, and was the most noted wit of his times." As Secretary of the Board of War during the Revolution, later as Judge of the United States District Court, Judge Peters, most delightful of hosts, entertained in his hospitable halls most of the celebrities, national and international, who came to Philadelphia. Among them were George Washington, John Quincy Adams, Gerard, Baron von Steu-

ben, Lafayette, and Genêt. In such houses as Belmont the gracious ways and delightful shell of royalty and royal living lingered on long after the heart and soul of royalty were dead. The genial judge, however patriotic in camp and cabinet of revolutionary colonies, to his dying day donned knee-breeches, silver buckles, and, with immaculately dressed queue of powdered hair, left Belmont after the manner of an English gentleman of rank, in a cream-colored coach drawn by six horses, his motto on the harness plates, his crest on the coach panels. That crest still remains on the ceiling of Belmont's broad hall. It was the Marquis de Chastellux who, in 1780, described Belmont as "a tasty little box in the most charming spot nature could embellish." Indeed, the small but beautifully decorated house shows in its perfection of detail as well as in its type a strong Louis XIV influence, and it is small wonder that the French aristocrat here felt himself *chez lui*.

Judge Peters was born in the original small stone cottage in 1744. The following year the adjoining brick structure, which forms a south wing of the mansion house, was added, and about 1755 the main house of brick and rubble. The great stair tower probably was finished in 1760 and the whole completed in 1762 with gardens and plantations. The original cottage part of the house shows the low ceilings, small casement



Belmont—the octagonal bay at the west end of the original stone cottage, built 1744



A chimney-piece in the second story of Belmont, in fine condition after many vicissitudes



Woodford was built in 1766. It has a base course of moulded brick, brick pilasters, and the unusual secondary cornice at the second-floor line

windows, narrow ceiling, and gambrel roof of the early houses on the Schuylkill. The rubble wall has the mosaic pointing, of small pebbles in the mortar joint, often found in early Pennsylvania.

Of the various additions and subtractions which have occurred at Belmont, there is not space for treatment here. Fiske Kimball, director of the Pennsylvania Museum, and well known as author of "Early American Domestic Architecture," has recently made extensive researches and published a bulletin on Belmont, in which he describes the house as follows:

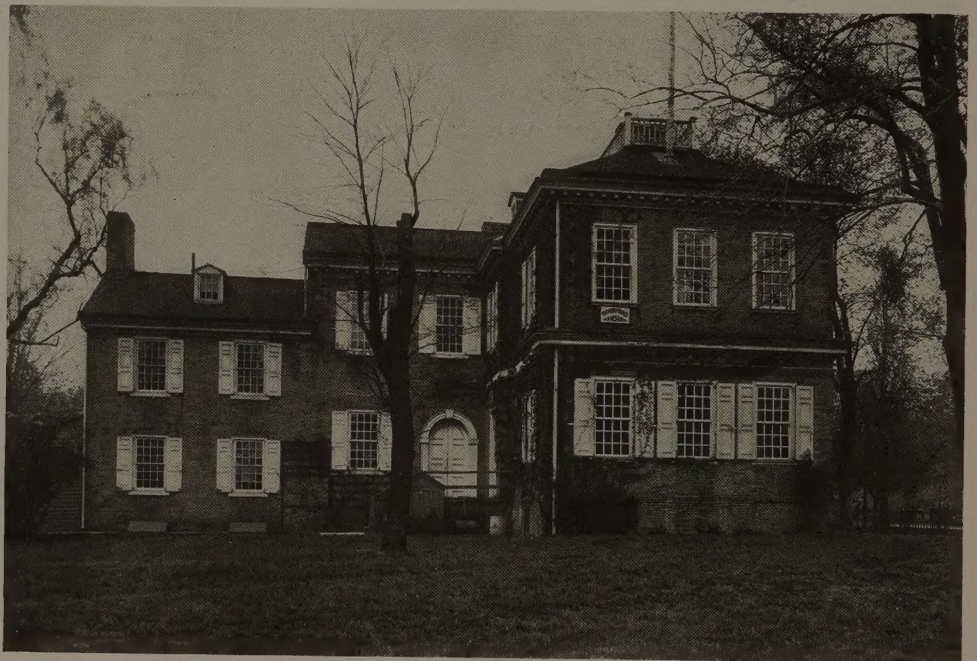
"The mansion house of Belmont, as left by William and Richard Peters, represented the early Georgian style of the middle of the eighteenth century. In spite of its small size, it gained unusual dignity by its symmetrical pedimented front and its emphasis on a single great central room, richly ornamented.

"The plan is clear

and balanced, with its openings so disposed as to give a vista through hall and stairs to the garden, and to make every wall of the hall symmetrical in itself. The chimneys, placed between the cubicles, leave the hall with its chimney-breast but slightly projecting, a simple rectangular space of fine proportion."

Woodford, erected in 1766, is a large square structure, two and one-half stories high, with a hip roof rising above a handsome cornice with prominent modillions, and surmounted by a balustraded belvedere, the deck having here its truly functional use; its railing is of "Chinese lattice," slender bars forming patterns in the panels.

Above the pedimented doorway a heavy pediment springs from the cornice. The subordinate cornice at the second-floor level is most unusual and may perhaps reflect the influence of the pent-house roof which became so popular in stonework of this vicinity. Few houses have the brick pilaster treatment at the corners with corresponding projections which enrich



Woodford, showing an end of the main building and its less formal rear wing



Laurel Hill, also known as the Randolph house. Its transverse wing with an octagonal end is unusually interesting

the ornamental trim. Six broad soapstone steps, with a simple wrought-iron hand-rail, lead to a fine doorway, Tuscan in spirit, and above is a beautiful Palladian window.

The front door opens upon a wide hallway with side rooms, in each of which is a fireplace with a wooden overmantel and a hearth of square bricks. Particularly interesting are the original brasses on the doors, loop-shaped instead of the more usual knobs. Fiske Kimball says of this house: "It admirably represents the early Georgian style just preceding the advent of Louis XV, or 'Chippendale' influence. Broad wall-surfaces, sturdy columns and arches, and the unusual elaboration of academic elements—the central pediment, the end pilasters, the triple Palladian window, the complete cornice between the stories—give it a formal dignity."

Of the various Colemans, Barclays, Franks, Paschalls,

Lewises, and Whartons who have in turn owned Woodford, the most colorful figure is the brilliant, beautiful, and winsome Rebecca Franks, celebrated belle of the Mischianza, pro-British both in politics and *affaires de cœur*, eventually married to Sir Henry Johnson, the British general captured and defeated by our "Mad Anthony" Wayne.

The original Laurel Hill, not to be confused with a later house which gave its name to the cemetery, is a striking example of Georgian architecture. The walls are of brick, now painted yellow, the classic doorway has flanking half-columns and pediment. A transverse wing with octagon end, characteristic of the period, relieves the austerity of formal lines unbroken. The woodwork in the drawing-room is particularly noteworthy.

[A continuation of this article in the next issue will describe and illustrate Mount Pleasant, Solitude, Ormiston, and Sweet Briar.]



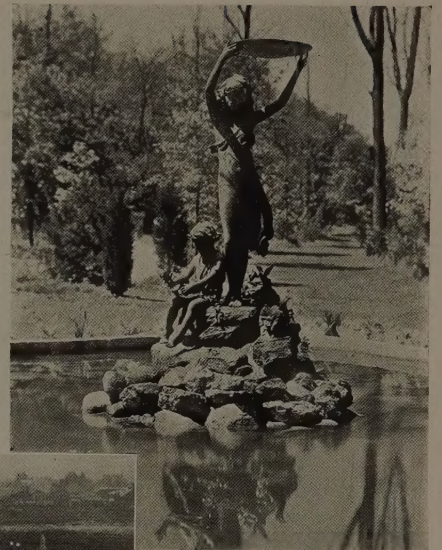
Entrance doorway of Laurel Hill



The recently completed Masonic Temple in St. Louis. Eames & Young, Architects



A foot-bridge across the Charles River, Boston, has been opened and named in memory of the late Secretary of War, John Wingate Weeks



Roosevelt Memorial Bird Fountain unveiled at Oyster Bay, N. Y., by the National Association of Audubon Societies. Bessie Potter Vonnoh, Sculptor



The Brooklyn Chamber of Commerce on May 10 moved into two floors of the new building which bears the organization's name. A. F. Simberg, Architect



Work is well under way upon the New York Life Insurance Building, occupying the former Madison Square Garden block. Cass Gilbert, Architect.

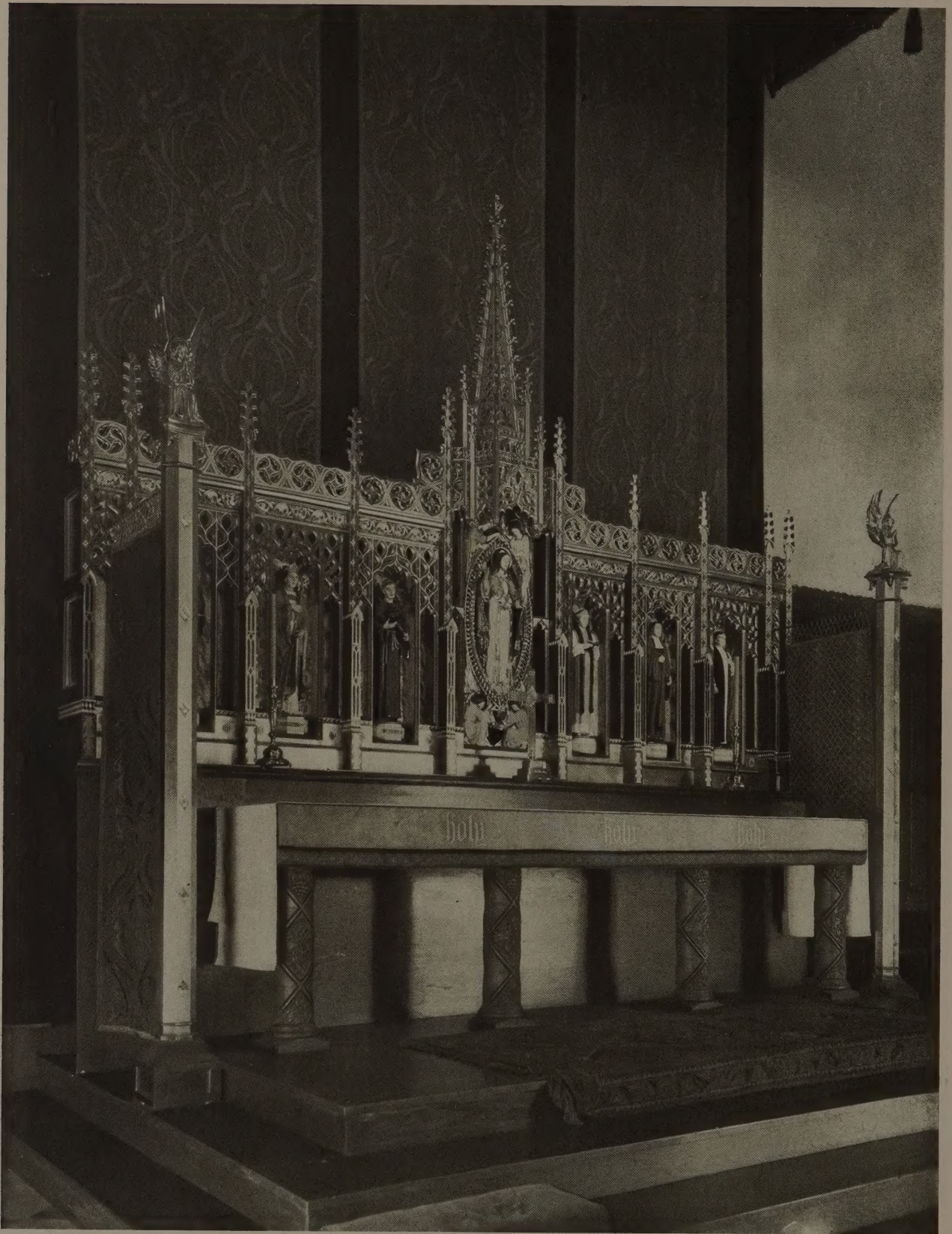


The Tribune Tower (on left), Chicago, is to have a new skyscraper neighbor, on Michigan Avenue. Holabird & Roche, Architects. Drawing by Gilbert P. Hall



ALL SAINTS CHURCH, BROOKLINE, MASS.

CRAM & FERGUSON, ARCHITECTS



REREDOS, ALL SAINTS CHURCH, BROOKLINE, MASS.
 (Built of white wood, gilded, with figures in polychrome)

CRAM & FERGUSON, ARCHITECTS

Mantel Designs in the Early Architecture of Ohio

By *Thomas E. O'Donnell, A. I. A.*

Assistant Professor of Architecture, University of Illinois

ILLUSTRATED WITH MEASURED DRAWINGS BY THE AUTHOR

THE early settlements in Ohio were made largely by groups of people coming from the older States of the East. The manner of their settlement was usually in organized communities patterned after the smaller New England towns. In these they set up the same institutions, customs, and practices they had been accustomed to, back in their home States. Thus, their little churches were direct reflections of the colonial meeting-house of the East, both in the manner of religious observance and in the style of architecture. Their homes, too, were founded upon the same social ideals as those of their home States, and the architecture of their pioneer structures exhibited strong reflections of the old colonial homes of the East. This resulted in the growth of towns and communities in Ohio which were, in most aspects, bits of old New England transplanted to the Middle West.

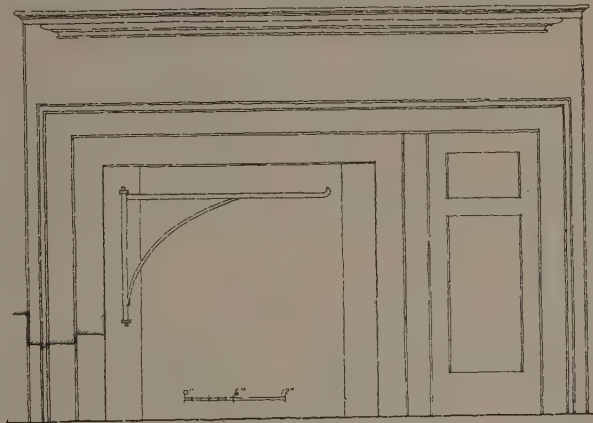
Although the earliest houses built in Ohio by the eastern settlers were in many cases temporary shelters, it was only a few years until they planned and built more enduring ones. It was but natural that the memory of the colonial houses of the East should be the chief source of inspiration for these early Ohio houses. Also, there were practical reasons. Many settlers were themselves carpenters, and many more had sufficient knowledge of building to erect their own

structures. A few trained carpenters were usually brought to each settlement for the express purpose of building houses and other needed structures in the new country. Being trained in the New England or Eastern methods of building, it was only natural that they should continue to build after the manner to which they were accustomed. Also, they necessarily brought along their tools, and some of them, at least, were supplied with the usual carpenter's handbooks. With all these influences operating, we should expect to

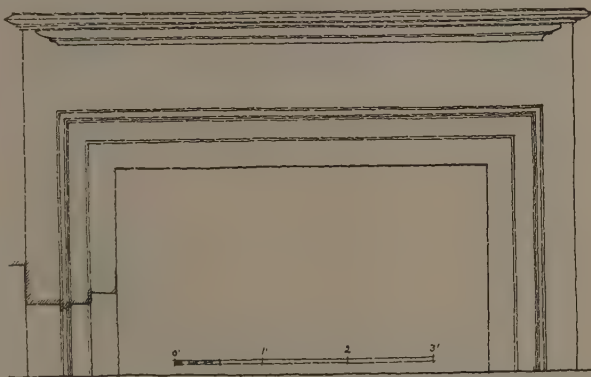
find much in common between the early work in Ohio and that in certain parts of the New England and other eastern States.

In the general plan and arrangement of the early houses in Ohio, there can be traced direct eastern influence. In the exterior details, of cornices, doorways, and windows, there is also much in common. Upon the interior perhaps the most interesting features to be met with, following eastern precedent, are the mantels. The earliest of these show decided colonial characteristics, while later on, the effect of the classical and Greek Revival movements are to be seen. During the latter period much of the lightness, grace, and charm of the colonial work is lacking.

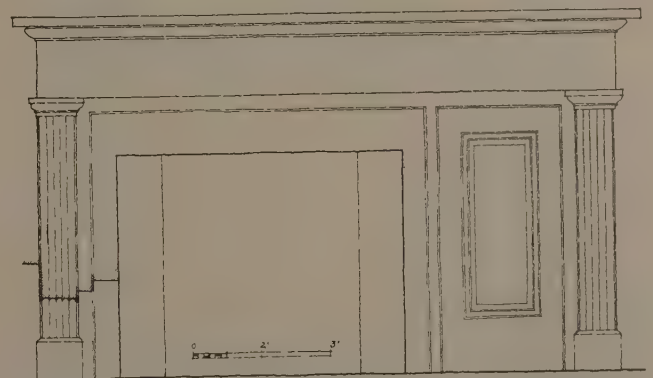
Most of the early mantels are no longer existing; however, a few remain which give some idea of the prevailing designs. A few may have been imported from



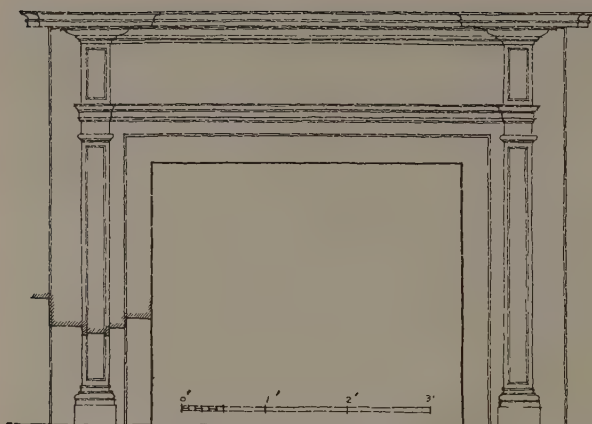
In the kitchen of the old Goodrich Tavern, near Vermilion, Ohio—the work of a New-England-trained carpenter, about 1825



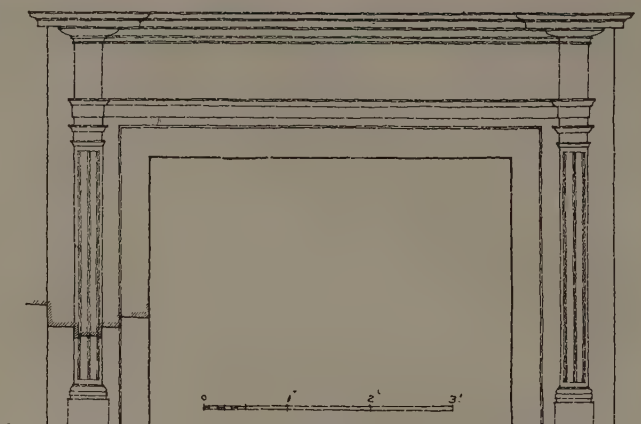
In the old Woodrow house, Worthington, dating from the same period as those in the Snow house, and by Eastern-trained carpenters



Kitchen mantel in the Garfield-Root house, Sheffield District, Northern Ohio. Date, 1835, and built by a native builder inspired from New England



In the east parlor of the Snow house, Worthington. It dates from about 1820, and was built by a New-England-trained man



Parlor mantel in the Case house, Worthington. Also the work of a man with New England training, but dating from a slightly later period

the East, but most of those to be seen to-day show evidence of having been built in place by the local carpenter. In too many cases, unfortunately, the old mantels have been greatly altered or entirely replaced by modern ones.

One thing that is particularly noticeable about the Ohio mantels is the great diversity of designs. The builders seemed especially given to varying the designs, even in houses that are otherwise quite similar. This can be accounted for largely because of the fact that the builder was not compelled to work out a design on paper, but instead started with an idea of what the finished mantel was to be and then designed and built it as he worked with materials and tools. In some cases there is evidence that designs in books were used for suggestions, but the builder freely interpreted the design, often with pleasing results.

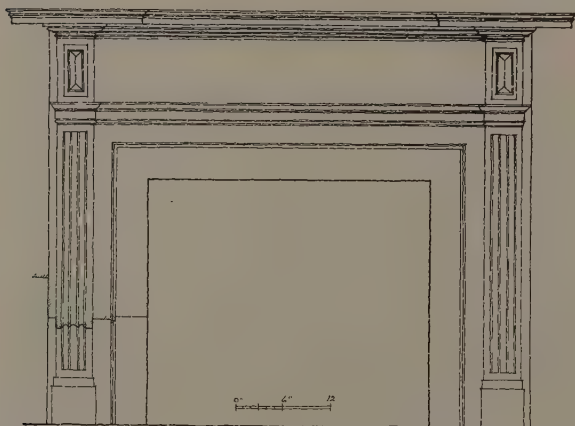
The accompanying designs have been selected to show something of the great variety to be found in the early work in Ohio, and to illustrate typical examples. Most of them are of the simple carpenter-architect type, of extremely simple lines, and they are presented

in freehand line drawing with the idea of bringing out their simplicity of design. Some, obviously, are too involved and intricate and consist of too many parts. In these the mouldings are often multiplied beyond reason, but it is to be remembered that these were built up by the local carpenter, using his simple hand tools and the materials at hand.

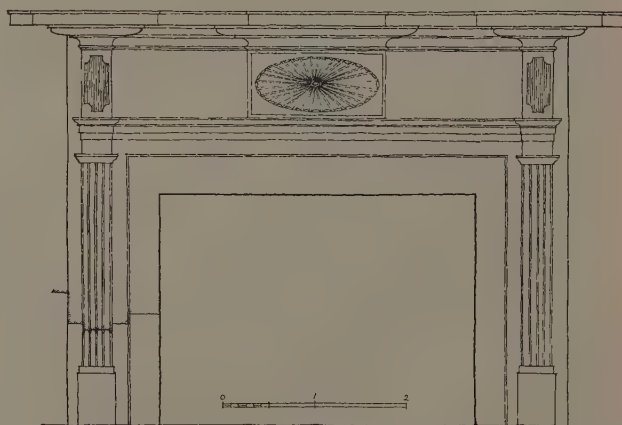
The mantel in the kitchen of the old Goodrich Tavern, located on an old stage road between Cleveland and Toledo, is typical of the kitchen fireplace with a warming-oven, in early Ohio work. It is of very simple lines and is not far different from many to be found in old New England kitchens, and was probably built by a New-England-trained carpenter. It consists of a simple enframingent with a moulded edge at the top and a warming-oven door at the side.

A mantel in the old Woodrow house, Worthington, shows a similar treatment, although it is smaller and is without the warming-oven door. Each of these mantels is over one hundred years old.

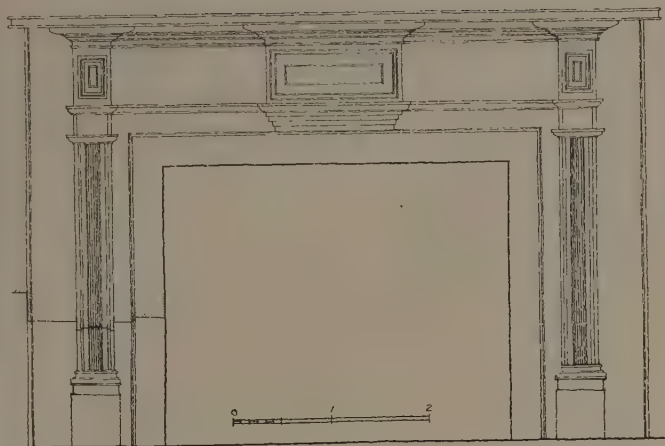
The kitchen mantel of the Garfield-Root house, in Sheffield District, Northern Ohio, is of a later date,



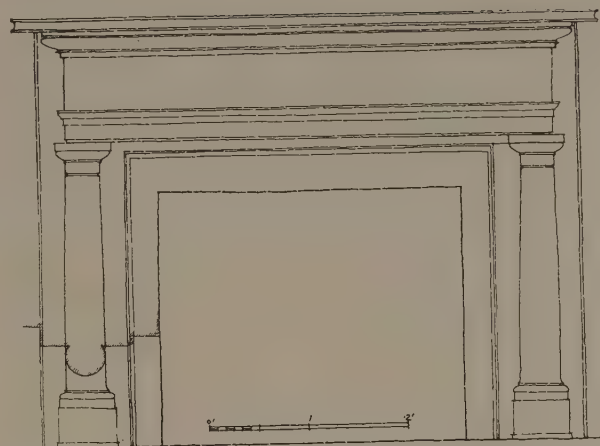
Parlor mantel in the Goodrich Tavern. It was built by the same carpenter who made the kitchen mantel in this tavern. Date, about 1825



Parlor mantel in the Burrell house, Sheffield District, showing New England precedent. The owner came directly from New England to Ohio



In the Coe house, North Olmsted. Built about 1835 by John Ames, a carpenter-architect trained in Albany. Typical Ohio pattern, built up of stock materials



Parlor mantel in the Ainsworth house, Medina, showing the heavy classical forms marking the transition step from Colonial to Greek Revival

and a more elaborate type. A greater use of mouldings and the addition of the fluted pilasters add to the decorative quality of the design. In its proportions and details, however, it is inferior to the Goodrich mantel, and is known to have been built by a native Ohio carpenter who was attempting to follow New England precedent.

The parlor mantels in the early houses of Ohio show a very close resemblance to the simpler type of the Eastern States, especially those found in Connecticut and western Massachusetts. The mantel in the east parlor of the Snow house, Worthington, dating from about 1820, is an example of one of the very simple and refined types. A comparison of this mantel with some of those in the small houses of the Connecticut Valley, shows strong evidence that it was built by a carpenter who had come from that region into Ohio. The mouldings are very refined and are quite similar to those of the East, suggesting that the carpenter had carried his moulding-planes with him into Ohio.

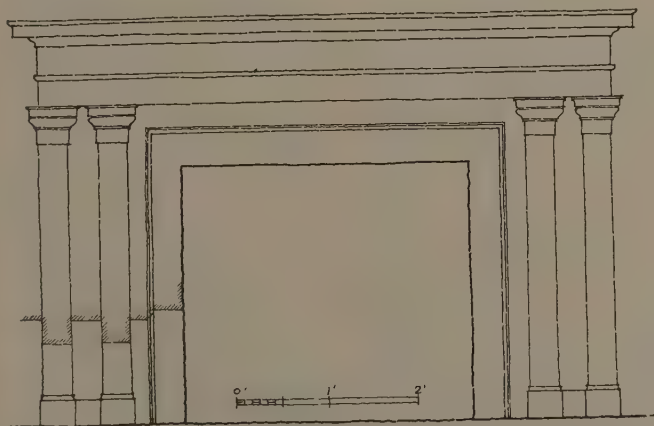
The old parlor mantel of the Case house, also in Worthington, is of the same general type except that, instead of the simple panelled pilasters, there is an

attempt here to make the pilasters more decorative by means of vertical grooving. Throughout this little town of Worthington, there are to be found a dozen or more old mantels, all of which show a common source of inspiration. It is not unlikely that the same workmen were responsible for a majority of them at least.

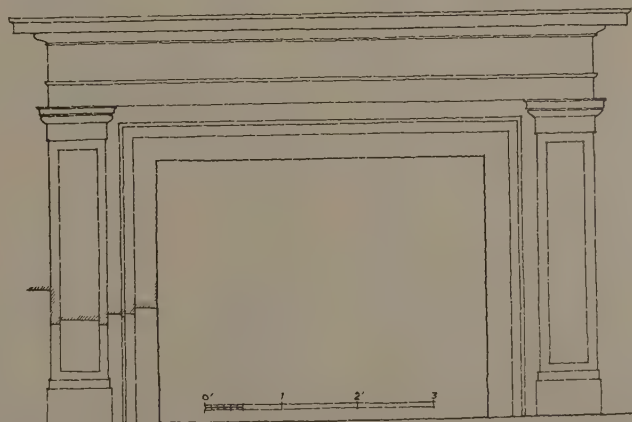
The parlor mantel found in the old Goodrich Tavern, while less refined, is, nevertheless, of this same type and period. Here also is to be seen the vertical fluting of the pilaster shaft. This mantel was, like the kitchen mantel, built by a New-England-trained carpenter.

In the larger and more pretentious houses of this period, a type of mantel like that found in the Burrell house, in Sheffield District, was very common. There is much in the design and detail of this mantel that suggests New England influence. The builder came from the East and settled here in the early days of the settlement of the New Connecticut or Western Reserve. In the design of this mantel there was some attempt to make it decorative.

The mantel in the dining-room of the Baldwin-Buss house, in Hudson, is of similar design, although more simplified in line and of larger scale. There are many



East parlor mantel, Joseph Swift house, near Vermilion. A simple type in the spirit of the Greek Revival without the use of Greek forms



Dining-room mantel in the Joseph Swift house. An example of the simple, massive type much used in the Greek Revival houses of Ohio

other examples of this general type which were much elaborated in detail. As the settlers prospered from year to year and accumulated wealth, they planned larger and finer houses, in which there were some very beautifully decorated mantels.

In slightly later examples, such as the mantel in the Coe house, near North Olmstead, a different spirit is to be observed. The general lines of the mantel are similar to the eastern types, but the character of the details and mouldings is not the same. A study of the accompanying illustration will show that there is a multiplicity of mouldings, of grooves and flutings. In some parts it presents the appearance of having been built up of many small parts, assembled by the carpenter in such a manner as to suggest a rather elaborate design. This mantel was built about 1835 by John Ames, a carpenter-architect who is said to have received his training in Albany, New York, and who, later, came to Ohio where he continued his trade, or profession. He is known to have possessed several of the carpenter's handbooks, among them those of Asher Benjamin.

From the earliest settlement, on down to about 1835, these simple, dignified mantels of colonial inspiration were the rule in Ohio work. But for some time, and in certain places, there was an ever increasing tendency toward the use of more purely classical details and proportions. This tendency increased until the old free classical form of the colonial were replaced by the stiff and studied form of the classical Roman, and, as we shall see, this gave way in turn and the old Roman forms were replaced by the Greek forms of the Greek Revival.

The parlor mantel of the Ainsworth house, in Medina, is representative of the type in which purely classical elements have been introduced. In this, the simple pilasters of the earlier mantel have been replaced by sturdy columns of Classical Roman detail and proportion. Also, the upper portion of the mantel is composed of members and proportioned in resemblance of a true entablature crowning the column. A whole series of mantels of this type are to be seen in Ohio, marking this period of classicism.

Close upon this tendency toward the Roman Classical form came the Greek Revival. This movement began in the East about 1800, and soon found its way into Ohio, where, by 1835, it became very popular. The old colonial style was by this time being put aside as old-fashioned, and the new Greek Revival hailed as the proper architectural expression of the rapidly developing new State.

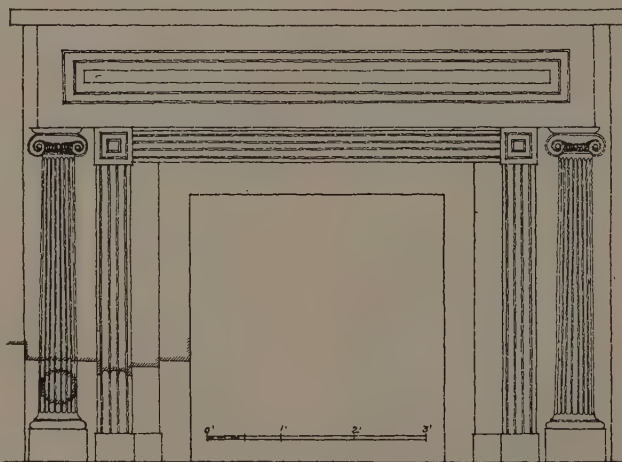
This was the period when the admiration of and enthusiasm for the

Greek form was so great that nothing short of literal copying, in many instances, would satisfy. Some credit, however, must be given many of the builders of the time, who tried to interpret the Greek forms, to adapt them, and to work in the spirit of them, in carrying out their own designs. But Greek precedent was looked to everywhere. Each building and each architectural element of the building was based upon some historic Greek motif or fragment. In the working out of the exterior of their buildings, the Greek Revivalists seem to have progressed with little difficulty. There were no new problems in particular to be met. But when it came to the interiors, the problem was far more difficult. The ancient Greek monuments were sufficiently preserved to show what their exteriors had been, but the interior embellishments were completely destroyed.

There was the further problem, that our way of living is certainly far different from that of the ancient Greek. The necessary interior architectural features of our homes presented a most difficult problem to the builder who attempted to do them in the Greek manner. Just what a Greek Revival stairway or mantel should be, was a puzzle, for no remains of such features were preserved in the ancient ruins. There was no precedent to follow.

The Greek Revival builders really never solved the problem of an appropriate mantel. The best they could do, in most instances, was to preserve the general practical form of the old colonial mantels and merely clothe them in Greek elements. There were a few attempts, however, to work into their mantels something of the refined simplicity of Greek work, and it is in some of the very simple mantels that this can best be traced. A good example of this manner of working is to be seen in the mantel of the old Swift farmhouse. The mantel in the east parlor of this house is shown here. Its chief characteristics are simplicity, some degree of delicacy and refinement, and all of very simple straight-line elements. The dining-room mantel of the same house, although of more sturdy elements and more massive

proportions, is of the same character. These two mantels have been selected because they harmonize well in their setting of Greek Revival elements, although, strange as it may seem, they do not contain a single pure Greek moulding or other element. The designer and builder in this case seems to have done the finer thing, namely, to put something of the spirit of Greek refinement into his work, trying to think, like the Greek designer, rather than merely to copy his motives. All builders of the period did not do so well.



Parlor mantel in the Andrews house, Milan, Ohio. Built about 1835. Typical of the more decorative Greek Revival mantels in Ohio

NOTES

HIGH SCHOOL BUILDING DETAILS OF ADMINISTRATION
OFFICES, AUDITORIUM, AND STAGE.
GUILBERT & BETELLE, ARCHITECTS

Auditorium :

General dimensions of High School at Madison, N. J. (illustrated), 57' wide by 84' long; seating capacity on main floor, 772; balcony, 232; total, 1004.

Aisles.—Centre varies from 3' at front to 5' at rear; side aisles vary from 2' 6" at front to 4' 6" at rear.

Seats.—29 rows on main floor, 2' 6" back to back; first row 5' back from stage-front to seat-backs; last-row seats 4' 6" from back of seats to wall (at centre of room).

Windows.—Wood sash and cathedral glass throughout; skylight above.

Stage :

Proscenium.—33 wide.

Curtains.—Velour curtain and valance immediately behind proscenium; two draw-curtains at intervals, with picture-sheet drop between.

Lighting.—Footlight trough and 3 rows of border-lights (see section).

Administration Rooms :

Wood floors throughout except in toilet-room, which has tiled floor and wainscot. Vault, 10' 6" by 4', provided with iron doors.

This is the ninth in a series of measured drawings by Mr. Geerlings, of which the subjects chosen are among those occurring in modern practice. The intention has been to select the best available solutions of problems that are likely to be troublesome to the architect who has not met similar ones before, and to reproduce these painstakingly, with photographs and helpful data.

Subjects that have already appeared are: A Shop-Front Show-Window (Starrett & Van Vleck, Architects), November, 1926; Interior Details of a Fifth Avenue Shop (Starrett & Van Vleck, Architects), December, 1926; Teller's Cage and Bank

Screen (York & Sawyer, Architects), January, 1927; Apartment-House Details (McKim, Mead & White, and James C. Mackenzie, Jr., Architects), February, 1927; Hotel Office Details (Geo. B. Post & Sons, Architects), March, 1927; Cigar-Stand, Hotel Roosevelt, New York (Geo. B. Post & Sons, Architects), April, 1927; School-Building Details (Guilbert & Betelle, Architects), May and June, 1927. The next drawing will cover some details of a modern and thoroughly equipped hotel barber shop, from Hotel Roosevelt, New York (Geo. B. Post & Sons, Architects). Suggestions as to further subjects desired are welcomed.

JULY, 1927

ARCHITECTURE



HIGH SCHOOL AUDITORIUM, MADISON, N. J.

GUILBERT & BETELLE, ARCHT



Sullivan W. Jones, A. I. A., State Architect of New York, an article from whose pen appears in this issue



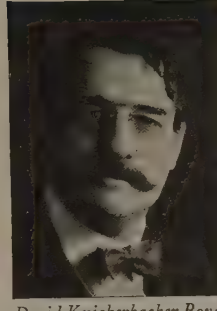
Clare C. Hosmer, A. I. A., who has done notable work in the recent development of Florida, at Sarasota



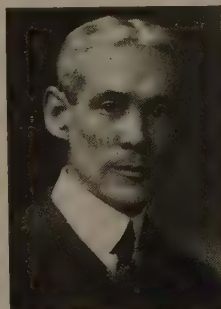
Addison Mizner, some of whose Mediterranean adaptations in Florida we have lately illustrated



Stephen F. Voorhees, F. A. I. A. (Voorhees, Gmelin & Walker), awarded the League's gold medal, 1927



David Knickerbacker Boyd, A. I. A., successful arbiter between the profession and labor in Philadelphia



T. E. Videto, A. I. A., who has a great deal to do with the writing of specifications in the office of Warren & Wetmore



Harry S. Lion, formerly office manager for Rouse & Goldstone; lately specializing in alteration and commercial work



Horace W. Peaslee, A. I. A., of Washington Chapter, has been active regarding the plan of the city of Washington



Walter Stewart Brown, trained in the office of Edgar V. Seeler. Senior partner of Brown & Whiteside, Wilmington, Del.



George H. Gray, A. I. A., practised in Louisville and New York and during recent years in New Haven



William Leslie Welton, studied in Paris, was with McKim, Mead & White, and now in Birmingham

*You know these
men by
reputation—
do you
know them by
sight?*



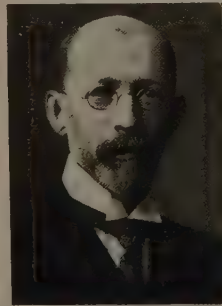
Brinton B. Davis, A. I. A., dean of the profession in Louisville, and designer of many of its best buildings



R. H. Shreve was an associate of Carrère & Hastings; now of Shreve & Lamb, New York



John P. Almand, A. I. A., specializes in hospitals and churches in and about Little Rock, Ark.



Herbert M. Greene, A. I. A., head of a firm doing important public work in and about Dallas, Texas



Paul P. Cret, A. I. A., head of the Department of Design, U. of P., and engaged in private practice



Hal F. Hentz, A. I. A., of Hentz, Adler & Shutze, formerly Hentz, Reid & Adler, Atlanta, Ga.



Howard Major, A. I. A., architect and author. His recent book is on the Greek Revival in America

ANNOUNCEMENTS

Bagg & Newkirk, architects, announce the removal of their offices to the Utica Gas and Electric Company Building, Utica, N. Y.

Shreve & Lamb, architects, announce the removal of their offices to the seventeenth floor of 11 East 44th Street, New York City.

Necarsulmer & Lehlbach, architects, announce that they are now established in their new quarters, 420 Lexington Avenue, New York City.

Dwight Perkins has withdrawn from the firm of Perkins, Fellows & Hamilton and is now associated with Melville C. Chatten and C. Herrick Hammond, under the name of Perkins, Chatten & Hammond, with offices in the Burnham Building, Chicago.

L. E. Denslow, architect, 1 East 42d Street, New York City, announces his resignation as vice-president and director

of the United Cigar Stores Company, where during the past twenty years he has been in charge of all architectural work of that corporation and affiliated companies. Offices for the general practice of architecture have been opened at the above address.

M. S. Fallis Architect Company announce the removal of their offices to the Gas & Electric Building, Denver, Colo.

Girard Lindsley and John Tomlinson Ferris announce that they have formed a partnership under the firm name of Lindsley & Ferris, for the general practice of architecture, with offices in the Globe Building, Washington Park, Newark, N. J.

C. L. Hutchisson, architect, has formed a partnership with N. H. Holmes and C. L. Hutchisson, Jr. The new firm will practise architecture and engineering under the name of Hutchisson, Holmes & Hutchisson, Architects, with offices at 400-403 State Office Building, Mobile, Ala.

BOOK REVIEWS

COLONIAL LIGHTING. By ARTHUR H. HAYWARD. A new and revised edition. 168 pages, 6¼ by 9¼ inches. 82 plates of photographic illustrations; 8 drawings by the author. Boston: 1927: Little, Brown & Co. \$7.50.

Mr. Hayward's pioneer history of lighting devices in America, from the "Betty" lamp to the elaborate candelabra and crystal chandelier of the early nineteenth century, was first published in 1923. Its cordial reception by collectors, antiquarians, and architects brought the first edition to a premium, and the demand for the book continues.

HOUSE AND GARDEN'S SECOND BOOK OF GARDENS. Edited by RICHARDSON WRIGHT, Editor of *House and Garden*, and ROBERT S. LEMMON, Associate Editor. 224 pages, 9¾ by 12¾ inches. Profusely illustrated from photographs. New York: 1927: The Condé Nast Publications, Inc. \$5.

A compilation of pages chosen from the magazine during the last five years, rich in the suggestion of garden details, planting material, and garden furnishings.

THE SMALLER AMERICAN HOUSE. By ETHEL B. POWER, Editor of *House Beautiful*. 100 pages, 8½ by 11 inches. Photographic illustrations, plans, and captions. Boston: 1927: Little, Brown & Co. \$3.

A particularly well-chosen selection of comparatively small houses, fifty-five in all, in wood, stucco, concrete, brick, and stone.

THE WORK OF DWIGHT JAMES BAUM, ARCHITECT. Foreword by HARVEY WILEY CORBETT, F. A. I. A.; Introduction and Commentary Text by Matlack Price. 200 pages, 12½ by 16 inches. Illustrated from photographs, plans, and details. New York: 1927: William Helburn, Inc. \$20.

A collection of representative work by a single architect always has a special interest—far more than work of the

same quality by various men. It enables the reader to come very close to the designer, to understand something of the man himself, to measure the catholicity of his taste and ability. Usually in such cases the architect establishes a manner of his own that may even be so marked as to enable us to detect his work at first glance. No one can say this of Mr. Baum. The range of his grasp of styles, the adventurous spirit of his pencil, the feeling for characteristic detail of many divergent architectural dialects—these are marked to an unusual degree in Mr. Baum's work, which, by the way, has been given a sumptuous presentation in this large folio.

SPANISH MISSIONS OF THE OLD SOUTHWEST. By CLEVE HALLENBECK. 184 pages, 8 by 10½ inches. 119 illustrations from photographs and old drawings on supplementary plates; and with plans and maps in the text. Garden City, N. Y.: 1926: Doubleday, Page & Co. \$7.50.

The mission architecture of the Southwest is so familiar to most of us through the well-known examples along the California coast that the greater bulk of the existing remains, scattered through New Mexico, Arizona, and Texas, is lost behind the glory of Santa Barbara and Carmel. Mr. Hallenbeck has performed a real service in this comprehensive history of that marvellously zealous work of the Spanish padres in carrying the torch of civilization into our uncharted wilderness—a mighty effort extending over two centuries, and producing a group of ecclesiastical monuments of unique distinction.

SPANISH INFLUENCE ON AMERICAN ARCHITECTURE AND DECORATION. By R. W. SEXTON, Associate Editor of *The American Architect*. 263 pages, 9 by 12 inches. Chiefly photographic illustrations of exterior and interior, with a few plans. New York: 1927: Brentano's. \$10.

A contemporary record of our American adaptations from the Spanish in residential work.

The Flatbush Reformed Dutch Church During 273 Years

ARCHITECTURAL CRISES IN THE LONG LIFE OF A LONG ISLAND CHURCH, FROM ITS FIRST BUILDING IN 1654 TO THE PRESENT STRUCTURE, ERECTED 1794, AND, AFTER MANY VICISSITUDES, RECENTLY RESTORED

THE present building of the Reformed Protestant Dutch Church located on a beautiful plot of ground at Church and Flatbush Avenues, Brooklyn, was begun in 1793 and completed and dedicated in 1796. It is the third successive church building erected on this site, the first having been built at a cost of 4,647 guilders (about \$1,800), in the year 1695, after the directions given by Governor Peter Stuyvesant and the Council of New Amsterdam. This building served its purpose until the end of the seventeenth century.

The second building was built in 1699 and was in existence during the American Revolution; after the battle of Long Island it was used temporarily as a hospital.

At the end of the seventeenth century the movement was inaugurated for the erection of the third and present house of worship on this consecrated spot. The large stones which formed the foundation of the old building were used for the foundation of the new edifice.

The exterior of the building has been stuccoed several times, and upon investigation it was discovered that in the original

coat of stucco charcoal was used as an aggregate.

There is no record available as to the type of the original pulpit in the building, but in 1836, when various improvements were made, the pulpit, supported on short columns and approached by two curved flights of stairs, was installed. In 1862 the interior of the church was again remodelled and this pulpit was replaced by an elevated platform with an ornate background. In 1887 changes were again made; an extension in the rear of the church was added, a new and greatly enlarged pulpit platform and choir loft installed, and the organ rebuilt and transferred to the rear extension.

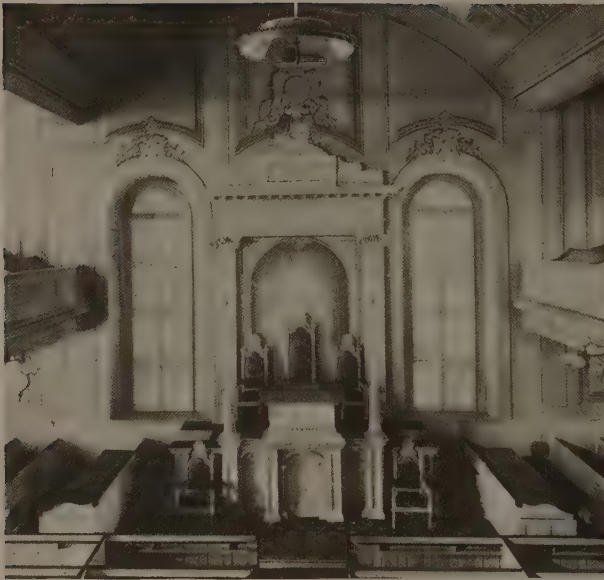
When it became necessary for the present Consistory of the Church to consider certain needed alterations and the redecoration of the church's interior, it was unanimously agreed that every effort should be made to restore as far as possible the early American colonial architectural spirit, which had been more or less destroyed down through the series of alterations.

Meyer & Mathieu were the architects commissioned to proceed with the work of restoration, the results of which are here shown.

Above, at the top, is an imaginary sketch of the first building (1654-1698), after directions given for its building by Governor Peter Stuyvesant and the Council



Above, in middle, is an imaginary sketch of the second building (1699-1794). At left, part of a lithograph of the present church in 1842, from Strong's "History of Flatbush"



The interior of the church after the alterations of 1862, when the old pulpit was removed



The same view, after the rear extension was added and the organ moved



The present state of the interior, after the recent restoration by Meyer & Mathieu, Architects



*The exterior from
its historic ceme-
tery*

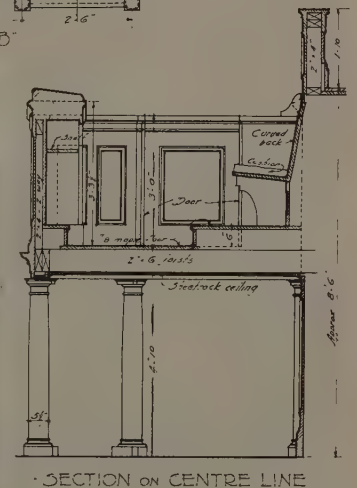
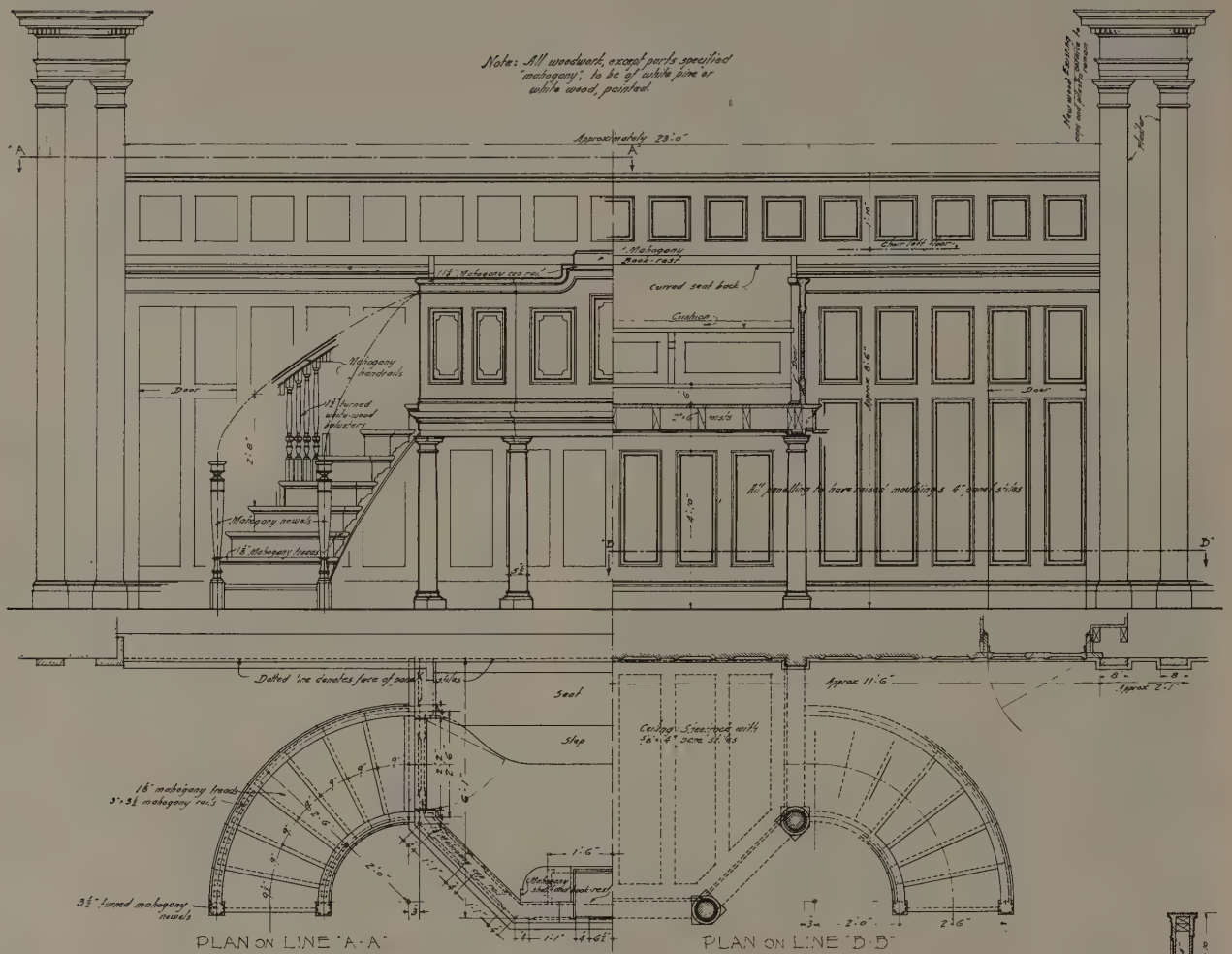


*The church from
the front, practi-
cally unchanged
as to exterior since
1793*



*The reproduction
of the pulpit that
was in use from
1836 to 1862*

*Meyer &
Mathieu,
Architects*



SECTION ON CENTRE LINE

Details of the recent alterations and restoration, Reformed Dutch Church, Flatbush, Long Island. Meyer & Mathieu, Architects

EDITORIAL COMMENT

❖ VOL. LVI, No. 1

ARCHITECTURE

JULY, 1927 ❖

RHEIMS

VIOULET-LE-DUC is said to have uttered the dictum: "If one wishes to have an idea of a cathedral conceived by an architect of the beginning of the thirteenth century, the most beautiful epoch of the Gothic style, it is necessary to go to Rheims."

Under the shells of the Germans and later of the Allies themselves, during the Great War, Viollet-le-Duc's advice came to have a melancholy significance indeed. That the grand old cathedral was not totally demolished was due more to the miraculous protection of Providence than to any effort of man to spare one of mankind's greatest creations. And now, nine years after the close of that war, time has healed that great wound and many more. Rheims stands sublimely erect once again, restored to the best of man's present ability. The wound is healed, but not without a scar that, in all probability, must ever remain, for the glass is gone. That fine flowering of mediæval craftsmanship, like the petals plucked from a perfect rose, lies beyond man's ability to replace. His engines of destruction have far outrun his arts of creation; he can so easily and quickly tear down that which he cannot build again.

The generosity of thousands who have flocked to Rheims as visitors from America and from other lands, aided by a large part of Mr. John D. Rockefeller's gift to France for the restoration of historic monuments, has made Rheims live again. May the great cathedral ever stand, not only as an architectural milestone in the long march of civilization but also as an effective reminder, to generations yet unborn, of the pitiful consequences resulting from man's inhumanity to man.



"If the die-hard opponents of the skyscraper, such as my friends Mr. Curran and Mr. Mumford, would only talk of regulation and control of tall buildings, I would be with them heart and soul. Perhaps they don't know it, but I always have been. But when they talk about flattening out Manhattan Island to a level ten stories throughout its area, I can do nothing but groan. They seem to have forgotten all about the elevator."

—HARVEY WILEY CORBETT.



THE CHANCEL

ONE of the best exchanges that comes to our desk is a little leaflet, printed occasionally rather than periodically, and called *Lutheran Church Art*. Here is an example of the forceful, stimulating way in which it is spreading the gospel of better church architecture:

"Thirteen years ago, when the second edition of Cram's 'Church Building' appeared, we read with almost a shock the statement that Mr. Cram made concerning the chancel. He states that the chancel is the

all-important part of the church, and the nave but an adjunct for the shelter of the worshippers. To-day such a statement as that would not cause any of us to rub our shiny pates and wonder.

"Thirteen years ago most of us had the idea that the church building was what country folks used to call the 'auditorium,' and that the chancel is but a little niche tacked on somewhere, perhaps on the long side, or even at one corner of the building. In those days we made our chancels as small as possible, for sectarian influence was a powerful thing, even as late as the year 1914. In order to escape any suspicion of high-churchery, we made our chancels very wide and very shallow. We discovered that they could be made even more like a 'rostrum' by the simple expedient of making them much lower than the 'church proper,' cutting off the corners with diagonal walls, curving the entrance steps, and elevating the chancel floor but a step or two above that of the nave.

"In those days our altars were seldom over five feet in length, with curiously spiked and heavily crocketed erections back of them, which we liked to enamel white. There was a tiny brass crucifix, a pair of Renaissance candlesticks, two pots of begonias made of galvanized iron and enameled in a most naturalistic manner, and a 'cover' made of velvet or velour, with metallic fringe and huge tassels at each corner. On the front of the altar was the inevitable Alpha and Omega, for that was all the symbolism that we knew, and we used it for all that it was worth.

"Over the altar was a plaster vault, or ceiling, that looked like one half of a huge umbrella. We used to paint it Prussian blue, with large gilt stars, and always a naturalistic white dove emerging from some pinkish clouds. The floor of the chancel was entirely covered with red carpet with nice large roses about the size of a head of cabbage."

"We state these things not to make light of the ways of yesteryear, for that is farthest from our intentions. We state them merely to show how the times have changed.

"To-day nobody would think of designing such a church. All of us have reached the stage where we can agree with Mr. Cram, for after all, the chancel is the most important part of the church by far. As such, it ought to be dignified."



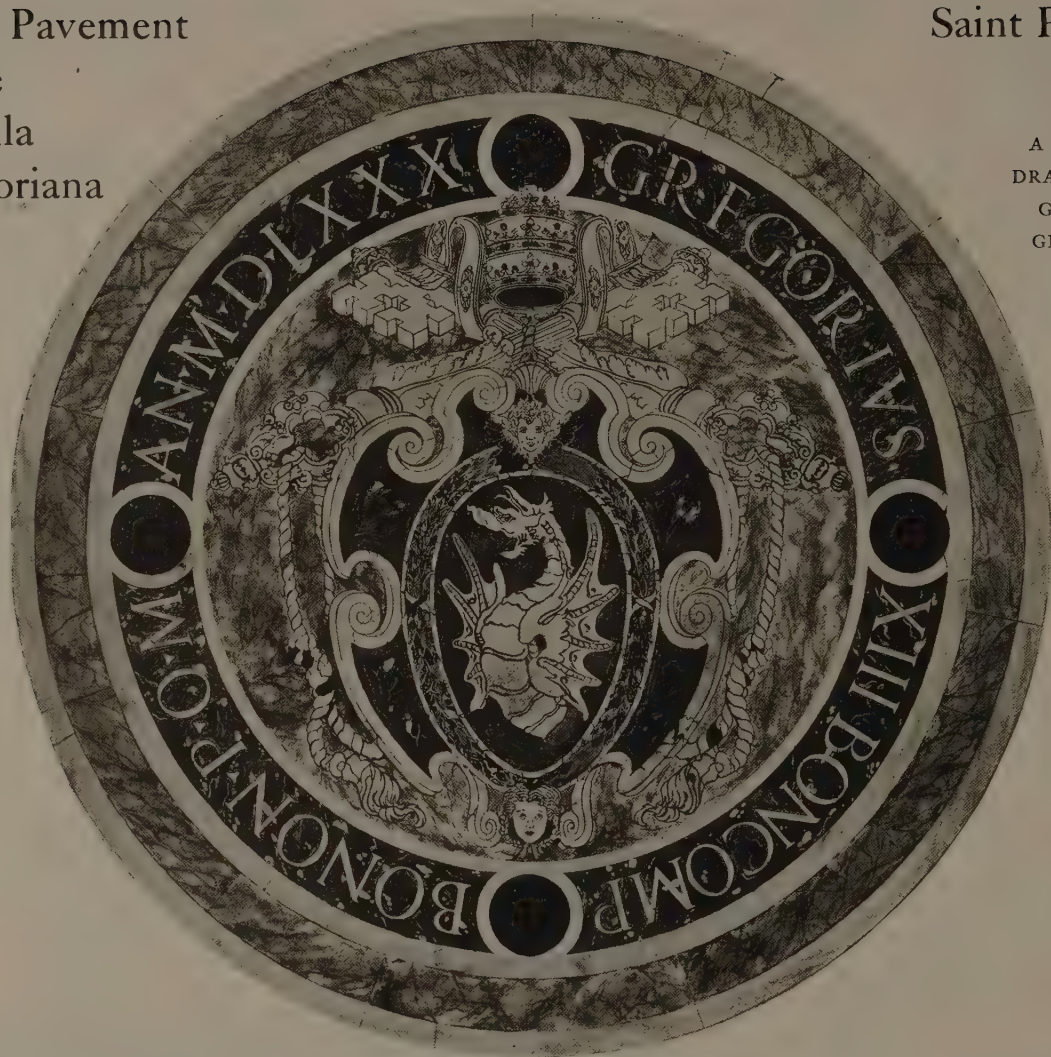
"Almost every other American city is copying New York and putting up its own crowd-collecting skyscrapers. Why do they copy New York? When they see the mistake New York has made, why don't they let the populace of that poor giant city squirm in its own sauce, and keep their own buildings down to a sensible height and properly spaced? . . . 'The higher the fewer' is a good rule for skyscrapers."

—HENRY H. CURRAN.

Floor Pavement
in the
Capella
Gregoriana

Saint Peter's
Rome

A TEMPERA
DRAWING BY
GERALD K.
GEERLINGS



THIS is one of those freely designed and colorful mosaics of the High Renaissance which are so refreshing to behold—and so easy to forget! There are many such outstanding inspirations but only rarely have they been measured and drawn, much less represented in color, so that the architect with available funds to spend for an interesting floor is but seldom reminded by his documents of the infinite possibilities for decoration in the lowly floor.

The mosaic seems to have been executed with several principles in mind: (1) where a design in line is to be displayed, as the dragon, the surrounding marble acts as a foil without veining (the photograph of the drawing shows the brushmarks in the tempera which are not evident in the original drawing); (2) where one band of marble boasts a design, as the inscription, the next band is without veining; (3) where veined marble is used in a narrow band or field, as in that surrounding the cartouche and the next-to-outer band, the veins usually carry around the circular feeling. The band with the inscription shows the cracks in the marble

and indicates the danger of making the strips of inlay too delicate in size to stand wear—the narrow parts of the letters are about $\frac{3}{4}$ inch across, while the leaves surrounding the centre are about $1\frac{1}{2}$ inches long and $\frac{3}{8}$ inch at the widest part. Many of the small berries of red porphyry between the leaves have failed to withstand the years of wear and have chipped out.

The diameter across the outer band is about 11 feet; the drawing itself is one-third actual size. The mysteries of photography make the spots of white around the inscription appear much more prominent than they are in the original. The dragon is a pale salmon pink (red where his tail is cut) against a pleasant yellow ochre; the surrounding leaves are green; the keys and tassels golden in a warm gray field; the letters are a light ochre in a mottled green field; the four circular inserts are a deep purple-red porphyry.

Permission to measure and draw was very graciously given by the Vatican authorities through the courtesy of the American Academy in Rome. The drawing is a part of the permanent exhibit at the University of Pennsylvania.

The Set-Back and What It Is Doing to New York

By DeWitt Clinton Pond

AMONG members of the profession who have not met the set-back problem in practice, it may not be generally known that the New York Zoning Ordinance, in addition to its regulations for the front of a building, sets forth even more drastic regulations regarding the stepping-back at the rear.

In a previous article (October, 1926) there was a description of how the slopes of the set-back lines were obtained, depending on whether the buildings under consideration were in one height-district or another. There was also another brief description of how the courts and rear yards were increased in size as the buildings became taller, but this matter requires a somewhat more detailed treatment.

It was explained that the city is now divided into "height," "area," and "use" districts, and that the area districts were designated by letters, such as A, B, C, D, E, and F. It will be seen that the regulations pertaining to these various area districts determine the proportions of rear yards and courts.

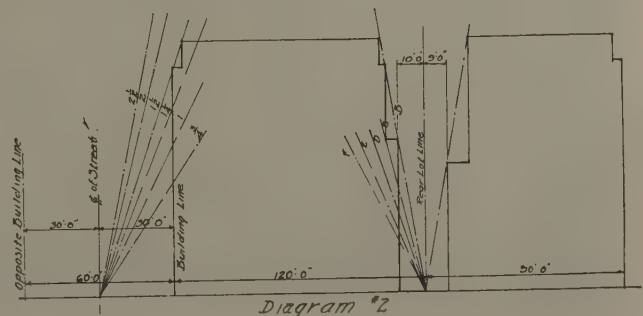
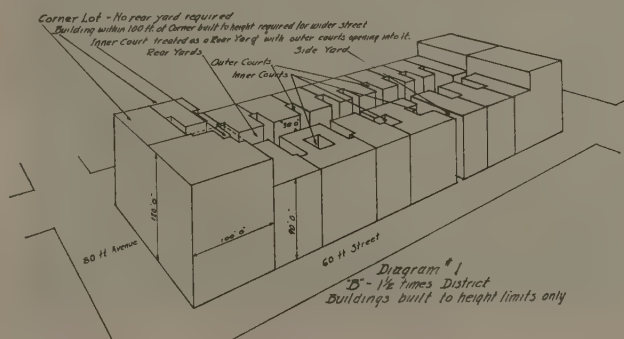
In general the theory of requiring rear yards for building on interior lots is based upon the desirability of having each city block similar to a hollow square, with an approximately rectangular clear space at the centre. At the ends of the blocks it is not required that the yards reach to the street, so when buildings are erected on corner lots there are no rear yards. Also, when lots are shallow—not over 55 feet deep—it is considered that the light from the street can penetrate to the rear of the buildings, and here, too, no rear yards are required. Then there are parts of the city which are unrestricted as far as use and the need of rear yards are concerned. These are known as "A" districts and are not large. They are found along the water-front or where railroad cuts exist—undesirable parts of the city for residential or business use and where buildings may be built to house the various hazardous, odorous, or noise-producing trades or occupations.

In general, however, it is necessary to plan for rear yards, and these tend to form the open space in the block as shown in Diagram 1. If courts open into the yards they are known as *open courts*. The same design-

nation is given to courts opening on the street, and one that opens on neither street nor yard is known as an *inner court*. When an open space exists along a lot line and extends from street to yard, this is known as a *side yard*. All of these types of courts or yards are classified in the Zoning Ordinance, and the regulations regarding their sizes are specifically stated, so that no tenant of one building may suddenly find himself entirely deprived of light or air through the erection of another building on an adjoining lot.

Now, as the slope of the street set-back lines was regulated by the requirements of a particular height-district in which a building might be located, the slope of the court or yard set-back lines is determined by the area-district in which a building is to be built. These requirements are not at all severe for A districts, but they are much more so for those that are designated by the letter E. As an example, there is only one short paragraph that states the law regarding the A districts, and this is to the effect that a court at any given height shall be at least one inch in lesser dimension for each foot of height. Since no rear yards are required in such areas, it can be seen that in the few small, unrestricted parts of the city the designers of a building have little to worry about as far as the Zoning Ordinance is concerned.

Outside of the A districts the regulations are more strict, and in Diagram 2 the lines shown as radiating from the rear of the lot are those which give the limits within which the walls bounding a rear yard must be built. In a B district the slope of the line is based upon a 2 to 12 ratio, or two inches for every foot of height; in a C district the ratio increases to 3 to 12; in a D district it is 4 to 12; in an E district it becomes 5 to 12, and this is increased to 6 to 12 in an F district. Rear yards in B, C, and D districts must have a minimum depth at their lowest level of 10 per cent of the depth of the lot, but this depth need not exceed 10 feet. This is shown in the diagram, where the rear yard of a 90-foot lot measures 9 feet, but that of a 120-foot lot will measure 10 feet. In E districts the depth of the yards must equal 15 per cent of the depth of the lot but need not exceed 15 feet, and in an F district the





Downtown Manhattan, wherein many of the tall buildings had been built before the present zoning law went into effect
Photograph by Fairchild Aerial Surveys, Inc.



Photograph by Fairchild Aerial Surveys, Inc.
Manhattan between the Pennsylvania Station (right lower corner) and Fifty-seventh Street (Ritz Tower in upper left corner), where the set-back is now pronounced

rear yard must measure 20 per cent of the depth of the lot but need not exceed 20 feet, except in residential districts, where the percentage is increased to 30 and the maximum rear yard to 30 feet. These dimensions establish the position of the rear walls of the buildings until they reach the set-back lines.

In Diagram 2 there is also shown the various slopes for the set-backs along the street fronts, so, if a building is in an A and a $1\frac{1}{2}$ -times district it will assume the shape shown by the heavy lines, provided it is carried to the height indicated. The height cannot exceed that governed by the intersection of the rear-yard line and the front set-back line, unless a tower is erected in accordance with a height-district exception.

So far, attention has been directed toward the set-backs required for the rear yard, but the side yards and courts have set-backs of their own which make less acute angles with the horizontal than do those for the rear yards. As a rule, side yards and open courts have the same requirements, and in a B district they must have a width of 1 inch to every foot of height. In a C district the slope is $1\frac{1}{2}$ to 12, in a D district it is 2 to 12, while in E and F districts the ratios increase to $2\frac{1}{2}$ and 3 to 12. In other words, the slope for outer courts is one-half of that for rear yards. However, the length of the court must also be considered, as will be shown later, for in certain districts, if the court is longer than it is high, the longer dimension determines the width.

Inner courts have other requirements. Assuming first that such a court is square, the sides must be of the same dimensions as the depth of a rear yard, but for this square court a rectangular one may be substituted of equivalent area, but having the short side equal to not less than one-half the length of the long side. A building 75 feet high in a B district must have a rear yard 150 inches deep. The sides of a square inner court of the same height would measure, therefore, the same, or 12 feet 6 inches. The area of such a court would be $12.5 \times 12.5 = 156.25$ square feet, and if it is desired to have a rectangular court in the place of such a square one, its area must contain this number of square feet. Suppose it is necessary to have one side 15 feet long, then the other must equal at least 10.42 feet in order to maintain the required area, but there is a further restriction to such regulations, for, as stated, the narrow side must be not less than one-half the length of the long side. Now, in order to find out just what the length of the short side may be, it will be necessary to use a simple algebraic equation.

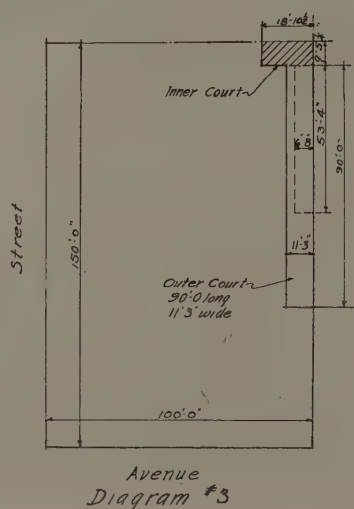
The court, we find, might be 8 feet 10 inches by 17 feet 8 inches and still conform to the law. Another method of treating an inner court is to be found in the last part of Paragraph C, Section 18, of the ordinance. Here is a statement to the effect that if a rear

yard is not required, as in the case of a corner lot, an outer court, at any level, shall open on an inner court in the rear line of the lot, and this inner court may be deemed a rear yard in such a case. The plan shown in Diagram 3 illustrates this condition. The lot is a corner lot in a B district and measures 100 feet along the avenue and 150 feet along the street. The building is 80 feet high, so if the inner court is square its sides would have to measure 160 inches, or 13 feet 4 inches in length. The area would be 177.69 square feet, and the least side can be found as stated above by equating $2x^2$ with 177.69, when x can be found to equal 9 feet $5\frac{1}{4}$ inches. The outer court need measure only one inch for every foot of height, so that it should be 80 inches or 6 feet 8 inches wide, provided it is not longer than 53 feet 4 inches. The requirement that sets a limit to the length is found in Section 12 of Article IV, in which it is stated that an outer court must have a lesser dimension of $1\frac{1}{2}$ inches for every foot of length. If the court is 90 feet long, as indicated in the diagram, it should be 135 inches wide. A provision of the ordinance which permitted lessening the width of the court if it is short has been declared a dead letter, and should not be considered by any one who is studying the zoning laws. An outer court must be 1 inch in width for each foot of height, or $1\frac{1}{2}$ inches for each foot of length in a B district.

It is evident that the mere establishing of a set-back line for a court does not settle the problem of how wide an outer court must be, as the length of such a court is a decisive factor. In C, D, E, and F districts it is necessary to find the height and length of the court and multiply the greater dimension by an inch and one-half for a C district, 2 inches for a D district, and $2\frac{1}{2}$ and 3 inches for E and F districts respectively.

Aside from the rules that apply to the dimension of courts and rear yards in the particular districts in which the building under consideration is located, there are other general rules that apply to such yards or courts, no matter in what district they occur. If a window of a room in which persons live, sleep, work, or congregate opens on a court, there must be at least 3 feet of unoccupied space within the lot measured at right angles to the window. In other words, there is a minimum of 3 feet as the least dimension of a required court, and this is only allowed in A, B, C, and D districts, where the walls bounding a side yard are 25 feet in mean height, or 40 feet in length. As a rule the minimum dimension is 4 feet, and 5 feet in an F district.

From the facts referred to in the foregoing paragraphs it is evident that no small consideration has been given to the provision of light and air in the rooms on the lower floors of buildings, although the courts shown in Diagram 2 are not very wide.





HOUSE OF WILTON LLOYD-SMITH, LLOYD NECK, LONG ISLAND

BERTRAM G. GOODHUE, ARCHITECT
BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



HOUSE OF WILTON LLOYD-SMITH, LLOYD NECK, LONG ISLAND

BERTRAM G. GOODHUE, ARCHITECT
BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



The Library

The Hall



HOUSE OF WILTON LLOYD-SMITH, LLOYD NECK, LONG ISLAND

BERTRAM G. GOODHUE, ARCHITECT
BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



Dining-room



Living-room



HOUSE OF
WILTON
LLOYD-SMITH,
LLOYD NECK,
LONG ISLAND

The Gun-room

BERTRAM G.
GOODHUE,
ARCHITECT

BERTRAM G.
GOODHUE
ASSOCIATES,
ARCHITECTS

The Job of a State Architect

By Sullivan W. Jones, F. A. I. A.

State Architect of New York

FROM experience, if it is of any value at all, we must learn wisdom. That was the profound observation of Lincoln's profound mind. If a modicum of truth is not revealed by the experience of life, then life is wasted.

My experience as State Architect has revealed the truth about many things, many people, many reputations. In wisdom, my four years in office has made me fifty years older.

I know too much of psychology and psychiatry and perhaps my habit of mind is a little too scientific for me to assume the dogmatic position that I am right and that what I think is the only truth. I'm not like the learned English professor of classical languages, of whom it has been said:

"My name is Benjamin Jowett,
I'm the Master of Baliol College,
Whatever is known, I know it,
What I don't know, isn't knowledge."

Soon after I assumed office in March, 1923, I was confronted with the necessity of making certain decisions with respect to plans for new buildings then in course of preparation. As these buildings were in many cases additional parts of institutions already designed, constructed, and in operation, the decisions seemed clearly to call for consideration of the functional or working relationships between these new buildings and the older ones.

The importance of arriving at correct decisions was greatly emphasized by the Fifty Million Dollar Bond Issue authorized in the fall of 1923 for new construction at State hospitals and charitable institutions. The bond issue made necessary the preparation of a four-year programme of construction; and the preparation of this programme called for determinations with respect not only to the kinds of buildings needed, but also to where they were needed. The problem was essentially an architectural one, but of vast proportions. It embraced the whole State of New York.

Early investigations indicated clearly that these great State institutions were fundamentally not unlike industrial plants. They are in reality processing materials (human material, to be sure) to produce a certain desired result—or they ought to be. A study of statistics accumulated during a period of twenty years seemed fully to justify this assumption. The statistical study also justified the conclusion that all State institutions conducted for a similar purpose—that is to say, for example, the State hospitals for the insane or the institutions for mental defectives—should be similar in design if they were to function similarly.

But instead of similarity there was found to be a wide dissimilarity. Inquiry developed wide differences of opinion between the superintendents of these institu-

tions on certain fundamental points affecting plan. Differences developed in regard to such prime questions as how large an institution for a particular purpose should be; do a few large buildings housing several hundred patients each, or a relatively large number of small units accommodating a relatively few patients, best serve the purpose?

There had been no research and no experimentation with a view to making intelligent determinations in regard to any of these matters. Under the circumstances, no one could be sure he was making suitable provisions in the planning of buildings and in grouping them without first securing a considerable amount of operating data.

I concluded that the problem of planning a State institution must be approached in the same way as the problem of designing a plant for the manufacture of automobiles or shoes or anything else in which materials were processed and fashioned into a predetermined finished product.

In order to make the necessary operating studies, I applied to the State Board of Estimate and Control for an allotment of funds to set up an Operating and Planning Research Division in the Department of Architecture for the purpose of reaching intelligent determinations with respect to purpose, function, and process.

As the result of these researches in connection with hospitals for mental disease, it was found that there were three main functions to be performed. First, that of rehabilitation, including medical, occupational, and physical treatment; second, the scientific custody of the permanently defective; and third, the operation of the utilities making possible the performance of the two functions first named.

By studying the statistics on first admissions to the State hospitals we determined what became of the patients after they were admitted, how they were classified and how long each class on an average remained in the institution. By studying the results of treatment, that is the product of the first function to be performed by the hospital, we reached conclusions in regard to the average length of time which a patient first admitted should remain under intensive medical treatment in order to produce the largest possible percentage of cures and to reach definite conclusions with respect to proper classifications. We found that maximum results were obtained within the period of nine months. At the end of that period, the patient had either been cured and released, had died, or had been conclusively diagnosed as a chronic. We found that facilities for intensive treatment in the various State hospitals provided for the care and treatment of first admissions for periods varying from three days to a year and a half. In making all of these studies we received the whole-hearted, enthusiastic co-operation

of the the doctors on the Construction Committee of the State Hospital Conference. Our approach to the problem was new to them and it took time and explanation to get them to understand what we were driving at. But when they did realize that the things they had been accustomed to discuss with the architect—flooring materials, types of windows, and window guards, keying systems, operating-room equipments, the kind of faucets for lavatories, etc., etc.—were all of very secondary importance, they asked "Why hasn't this kind of a study been made before?"

We also reached determinations with respect to the size that an institution ought to be. Again using the hospital for the insane as an illustration, we found that the size of the institution should be fixed by the admission rate. By way of illustration, if you have a reservoir from which 1,000 gallons evaporate each day, and you pour into that reservoir each day more than has evaporated, it will overflow. In the State hospital the "evaporation" is the combination of discharges and deaths, and the "overflow" is taken care of by overcrowding and by the transfer of patients to other hospitals where the "evaporation" is in excess of the normal supply. We could reach these determinations because we knew the average life of the patient in the institution.

All of the institutions of the State tested upon the basis of these determinations were found to be wholly out of balance. Not only were the institutions out of balance, the whole State was out of balance. Under the circumstances, the wonder is that the hospitals and the hospital system have operated as well as they have. For this the credit belongs to the superintendents who have struggled continuously to overcome the difficulties of keeping in operation an imperfect piece of machinery.

These researches, and determinations of functions and processes and turnovers, which they made possible, led logically to the standardization of types of buildings for specific purposes. That does not mean that we have standardized the architecture, but we have standardized the processes to be performed within the building and that standardization leads inevitably to a standardization of facilities and functional relationships in plan. These studies have been carried to the point now where if we are told the admission rate for a new institution, the institution rolls itself out automatically behind that rate.

The procedure followed in my office in designing an institution now consists of taking the diagrammatic layout of requirements, generally in the form of cut-outs representing the plan silhouette of buildings, and moving them around upon a contour map until they finally adjust themselves in an orderly arrangement, which itself suggests the functional lines of operation. When this block plan is prepared and the buildings are spotted, we then proceed with the development of the detail plans and of the elevations. Up to that time no one is concerned with what happens inside the building; it is all encompassed within the outline or cut-out. The whole architectural conception grows out of the func-

tional requirements. No one thinks of architecture in the esthetic sense until the building or the group have, as it were, laid themselves out. To many architects this would seem to be putting the cart before the horse, or reversing the usual process of developing the design of a building. The results secured from our method are intensely interesting, because the designer is more or less pushed to his final conclusions and finds his creation quite different from what he had previously, if vaguely, conceived it to be.

Because of the need of practising every possible economy and because our architectural thinking has been reduced to a basis of fundamental principles, no architectural flourishes are indulged in. The result universally has been most gratifying, and we get a real "kick" out of discovering our architecture well along toward the end of the study.

It is an operating maxim in the office that style and simplicity are synonymous. Its truth is exemplified in the buildings comprising the new Rockland State Hospital, where the architecture is characteristic of the material used—concrete. There has been no attempt to falsify either the material used or the functions performed by the buildings. They are what they are and for that reason have a tremendous architectural appeal. Harvey Corbett looked at the birdseye perspective of this great institution drawn at small scale and said—"That is a good plan. I can see how it works."

Out of our industrial life of to-day there is developing a new and profoundly significant architecture. Greater and greater emphasis is being laid upon function. The requirement that a building shall serve its intended utilitarian purpose is becoming all-important. In that respect the practice of architecture is coming to rest more and more upon the fundamental principles and in that sense the point of view of the architect is reverting to something more primitive and closer to life than it has been for the last several centuries.

Nothing that is wasteful is good. Architecture that wastes floor space, that wastes decoration, that wastes material, that wastes human energy in its erection or use, is bad because it is a false note in the unbroken architectural record of human life and advancement.

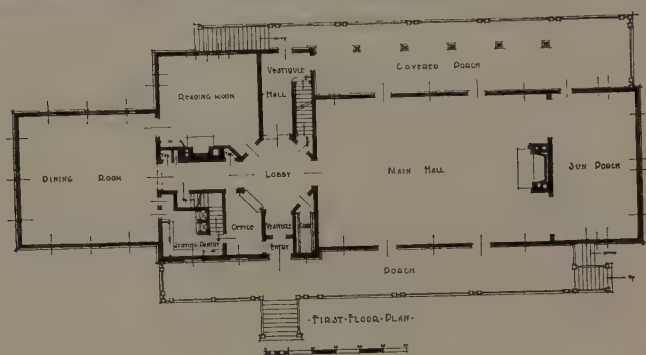
The foundation of function, upon which I maintain the practice of architecture must rest, is no bar to architectural expression of the finer things in life when such expression is appropriate and becomes a part of the function of the structure. A public building must house certain processes of government, but also it should be symbolic of the dignity and majesty of that collective will of the people which we call government. The modern architect cannot afford to permit himself to be shackled by tradition in his scientific and impersonal approach to his problem. New problems require fresh thought and an unrelenting search for the truth in architectural expression.

These principles have been applied to the solution of architectural problems involved in the State's great building programme. They have been found to work and work well. We need not apologize for the appearance of the structures erected and being erected.



HAVERHILL COUNTRY CLUB, HAVERHILL, MASS.

HAROLD FIELD KELLOGG, ARCHITECT

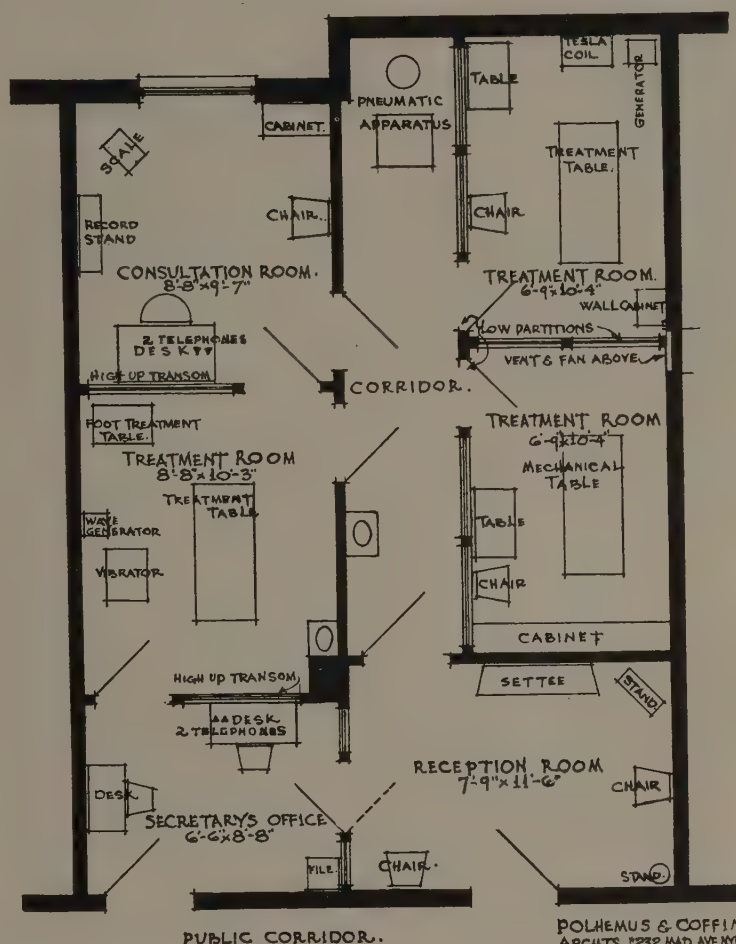


HAVERHILL
COUNTRY
CLUB,
HAVERHILL,
MASS.

HAROLD FIELD
KELLOGG,
ARCHITECT

Planning an Office for the Physician Specialist

Reprinted in part
from an article by
NORMAN D. MATTISON,
M.D.,
in *The American
Journal of Physical
Therapy*



The architects worked under the severe handicap of dividing up some 600 feet of floor space with but one window

THE only reason for not applying certain efficiency methods to professional work is inertia. If this reason were a good one, or even acceptable, there would be no purpose in writing this article, which is admittedly a frank discussion of some effective methods as I have found them of advantage.

The practice of physio-therapy, as a specialty, in a modern office building is a problem into which several factors enter. Apart from the essentials of light and air, the principal factor is the arranging of floor space with the least waste and the greatest convenience. This problem I worked out with the aid of a well-known firm of architects, who could anticipate many of my needs because they had recently completed plans for a large professional building. With their assistance I converted a somewhat unpromising floor space of about 600 square feet, with only one window, into seven efficient working units, all of which are well lighted and ventilated.

Though the floor plan would indicate that the rooms, especially the treatment units, are small, they are quite adequate for their purpose. And these units have made possible, with the assistance of a capable aide, the treatment of more patients with a minimum of loss of time, plus the requisite at all times of privacy.

The problem of air and its circulation was solved by the placing of a ventilating fan, which creates a constant exhaust from the window, in which latter is placed an air control. Transoms, with opaque glass, were placed over all the doors, which have proved of advantage in the plan for ventilation without the loss of desirable privacy.

Thus the air is constantly fresh; it is entirely renewed by this means two or three times an hour, and the relative humidity is more nearly that of the outside atmosphere. The advantage of this is obvious.

The lighting, with only one window available for direct light, was solved by overhead units, which give perfect diffusion and but little glare. These are the products of the physics laboratory of a large electrical concern, and were selected as the ones best adapted to my needs.

The use of opaque glass, placed high up in the permanent partitions and in the doors and transoms, the so-called "borrowed light," takes away from any sense of "shut-in-ness" and helps to give a sense of openness, as well as an apparent increase in the size of the rooms.

Experience has proved the advantage of the walls and trim being all in one color, preferably a light tone, and this was carried out in my plans for decoration.

A SYMPOSIUM ON COMPETITIONS

More thoughts pro and con from members of the profession

Give posterity the advantage

The competition is a venerable institution in architecture and has produced some of the buildings ranking high among historic monuments. We must admit that even in his final study a given individual does not always arrive at the ideal *parti* in the solution of a problem, and that in the solutions submitted in almost any well-conducted competition schemes of men of equally high standing in the profession vary greatly in merit. Also, in a series of competitions a given architect is now high in the scale of merit and again low. In the case of important monuments, I see no reason why posterity should not be given, either of hidden genius or of momentary inspiration of the already great, the best the architectural profession can produce.

F. M. MANN,
University of Minnesota.

I am in favor of competitions

Competitions in architecture are certainly a bugbear to the profession. Nevertheless, it seems to be a necessary evil that is difficult to surmount.

The American Institute of Architects has endeavored to outline a way and a means whereby both the owner and the architect can be reasonably satisfied that the best has been accomplished. However, architectural programmes, architectural juries, and the final action of the owner seem to circumvent just that which the Institute has endeavored to accomplish.

In spite of all this, I am in favor of competitions. First it gives the younger members of the profession an opportunity to show their ability to plan and design even large work, whereas without said competition it would take them years to develop a reputation that would permit of their being given large, important work.

Second, when architects enter a competition as a rule it inspires each member of the competition to greater study and more painstaking work than they would do if they knew they were not lining up with their professional brothers.

Also there carries with the winning of a competition in an important work an honor and satisfaction which is often well worth the attempt. For the benefit of the majority of architects, competition, if properly conducted, is a good thing, and I would say the same thing for the owners who are seeking the best talent to be developed in their project. Oftentimes corporations, clubs, Masonic organizations, find it impossible to select an architect outright without creating a great deal of ill feeling, and in order to preserve harmony in their organization a competition is resorted to.

And if we could only discover a mandatory way of conducting competitions and deciding same strictly on an honor basis, all would be well. The Institute is earnestly endeavoring to bring this about. It has not yet

succeeded, but I hope it may soon fully accomplish this tremendous feat.

Much can be said against the architect or the architectural firm that makes an every-day practice of going into every competition that they can hear of, consequently conducting an office with all the paraphernalia ready for these multitudinous competitions. I do not consider this good practice. A competition should be entered into when invited by the owners and not by inviting oneself. The profession should stand above this method of securing work.

Happy is the architect who has established himself during his practice on such a high plane that the public seek him and give him outright the work to be done, or at least the minimum compensation recognized by the Institute and all good practitioners.

I would earnestly advise the younger architect to seek to so develop himself and to give such perfect service that he will not find it necessary to seek competition or to enter into competition very often.

H. B. WHEELOCK,
President, Chicago Chapter, A. I. A.,
Chicago.

Ideas without remuneration

Competition in drawing plans for an individual who knows no partiality, if treated according to real merits of architecture, I believe leads to better architecture; but on the other hand, if one has to deal with a committee or board composed of several men who are not, at times, able to judge the merits of architecture, in this case, I say that competition should be eliminated. I firmly believe that in all municipal work the architect should be hired without competition, but that in work for the government where the work of competent architects will be judged by competent masters, I entirely approve of competitions.

We have had an example of this very thing within a very short time, where ten or twelve architects were invited to enter a competition, drawing plans for a public building. The outcome was that one architect was favored before the competition, and while the plans were explained to this committee, the committee abstracted the better ideas from each diverse plan and had the favored architect incorporate same in his plan at the finish of the competition; in this way we all drew one set of plans and the favored architect had to draw an entirely new set of plans, entirely different from his original set, submitted in the competition, since he had to incorporate the ideas of the different architects in his plan from which the building was to be constructed.

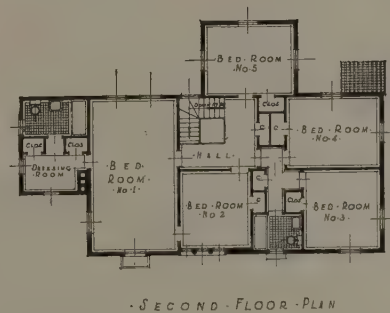
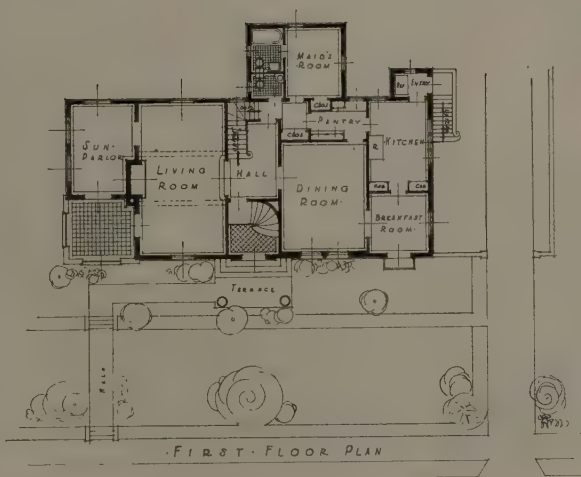
You will agree with me that this kind of competition is a waste of time and money for the majority of competitors to the benefit of one particular participant.

LOUIS G. DESTREMPs,
Fall River, Mass.



HOUSE OF EUGENE ORSENIGO
MOUNT VERNON, N. Y.

SIGMUND A. GUTTENBERG, ARCHITECT





HOUSE OF EUGENE ORSENIKO, MOUNT VERNON, N. Y.

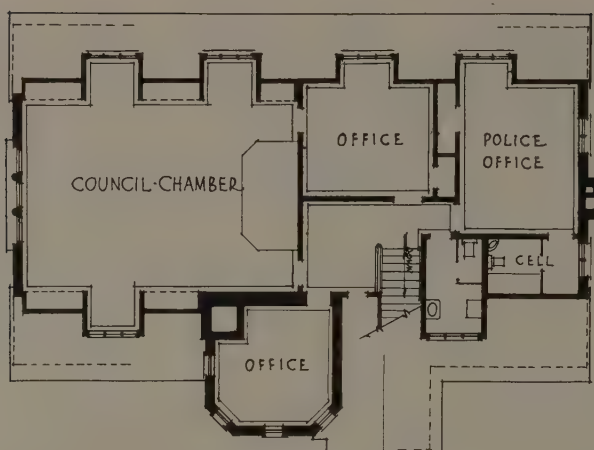
SIGMUND A. GUTTENBERG, ARCHITECT



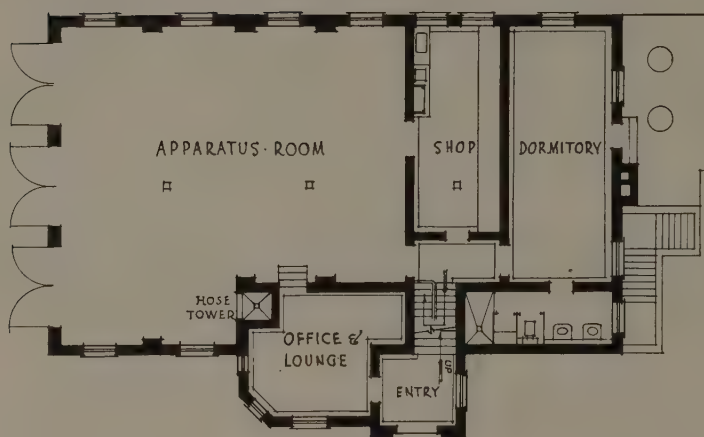
FIRE
STATION,
OAKWOOD,
OHIO



SCHENCK &
WILLIAMS,
ARCHITECTS



SECOND-FLOOR-PLAN



FIRST-FLOOR-PLAN

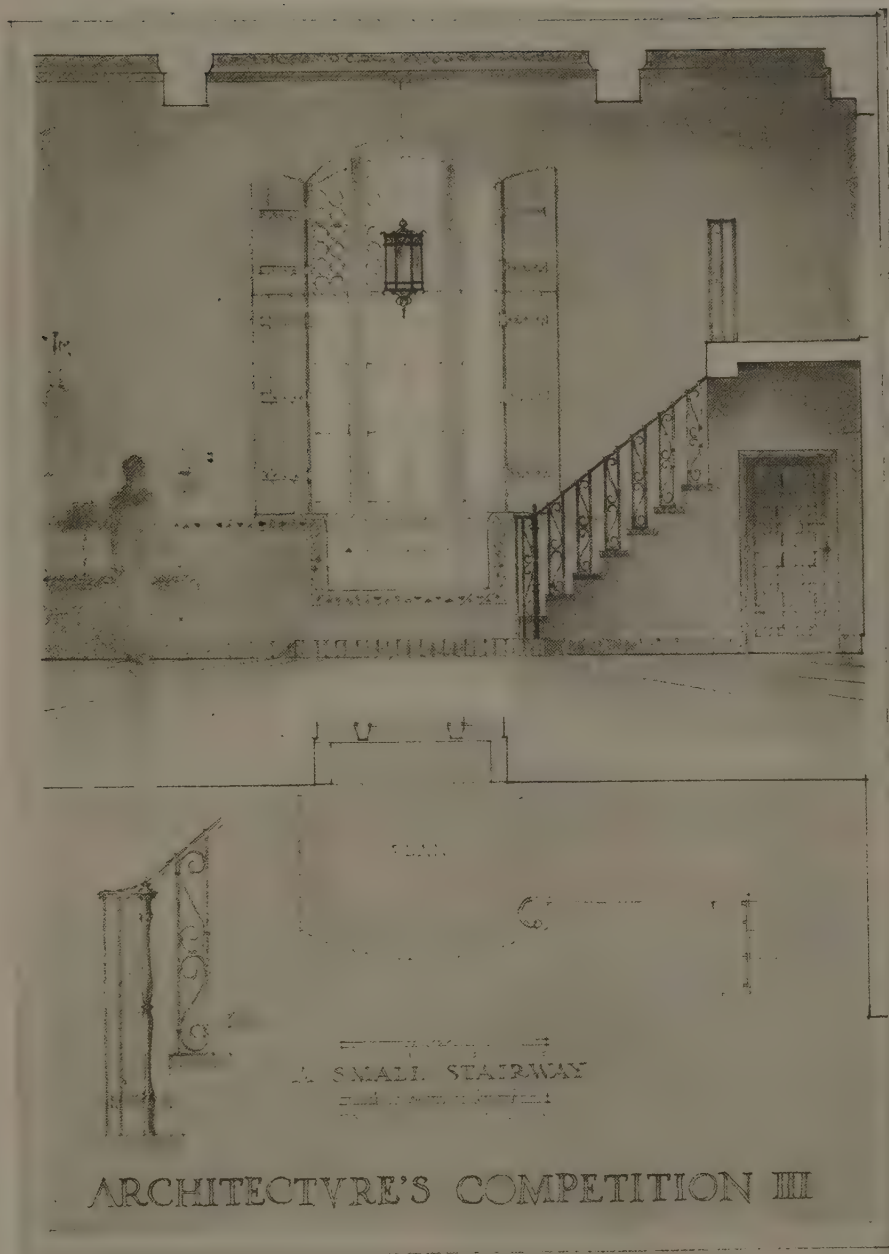
0 5 10 15 FT



BASEMENT-PLAN

FIRE
STATION,
OAKWOOD,
OHIO

SCHENCK
&
WILLIAMS,
ARCHITECTS



DESIGN
AWARDED
FIRST
PRIZE

BY
ROBERT
McLAUGHLIN,
NEW YORK

ARCHITECTURE'S Competition III—Report of the Judges

COMPETITION III called for "A small stairway leading from a studio to the owner's sleeping quarters above. The style is that of the informal minor Italian villas."

The judges unanimously agreed in awarding the prizes as follows:

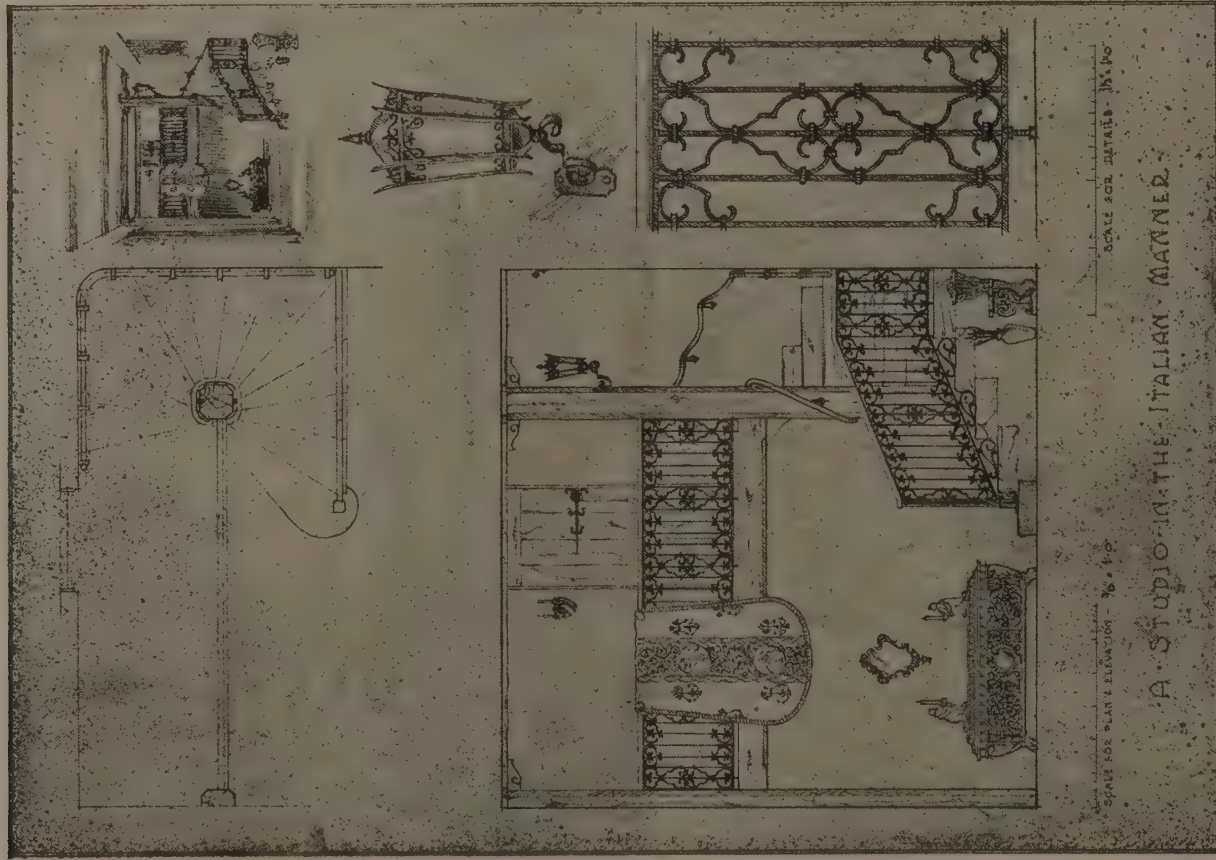
First prize—Robert McLaughlin, New York City; second prize—Harold G. Schoenthal, New York City; third prize—Edmond J. Ryan, Chicago; fourth prize—Thomas A. Cresswell, Chicago; fifth prize—Edward J. Parnum, Philadelphia.

Some of the contestants interpreted the programme

to mean that the balcony was not required across the whole end of the room. Others modified it in shape and size. All such interpretations seemed to the judges permissible under the terms of the programme.

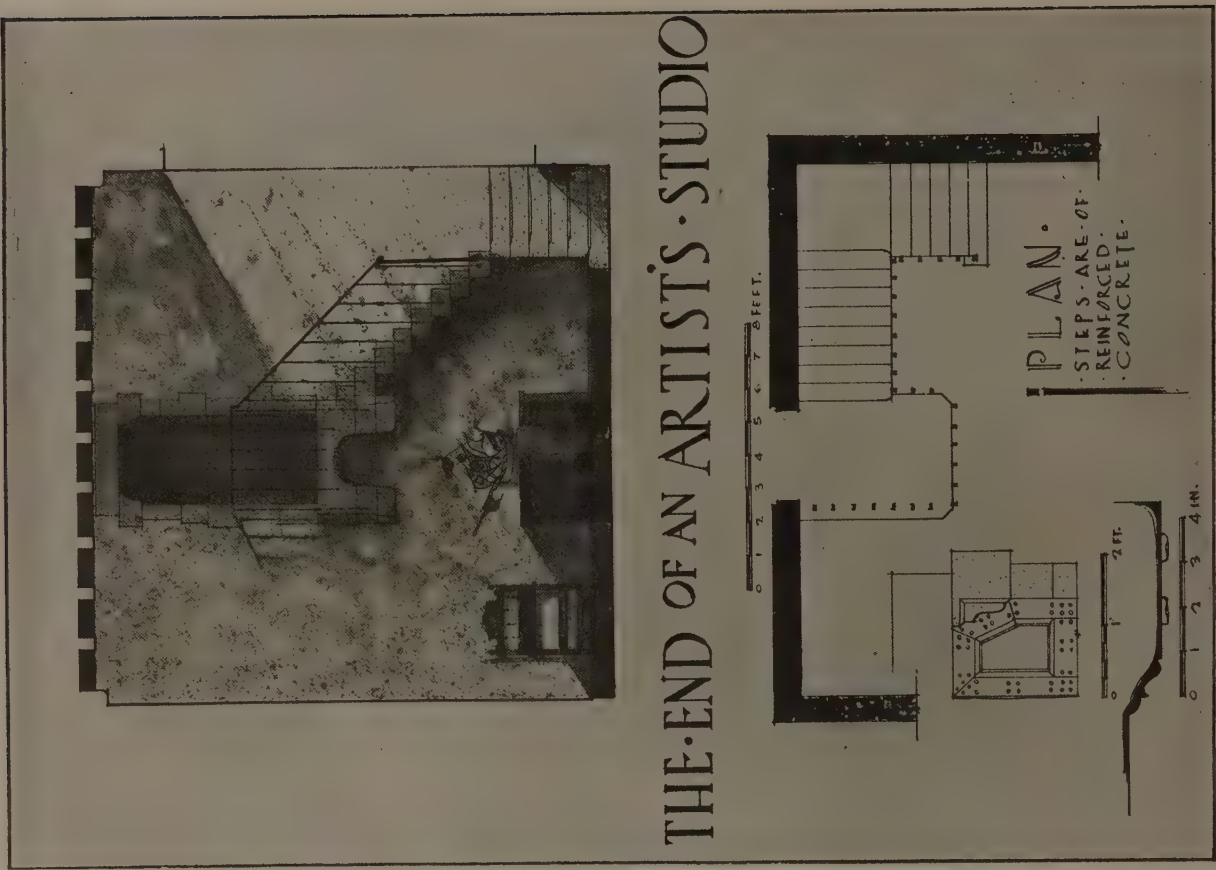
On the other hand, a number of contestants carried their stairways outside the limits of the room itself, which, it seems quite evident, was not intended by the programme with its accompanying diagram, and these entries were barred from further consideration.

In general, the entries showed a refreshing variety of approach and treatment, though frequently, as in Competition I, a rather careless interpretation of the period requirements.



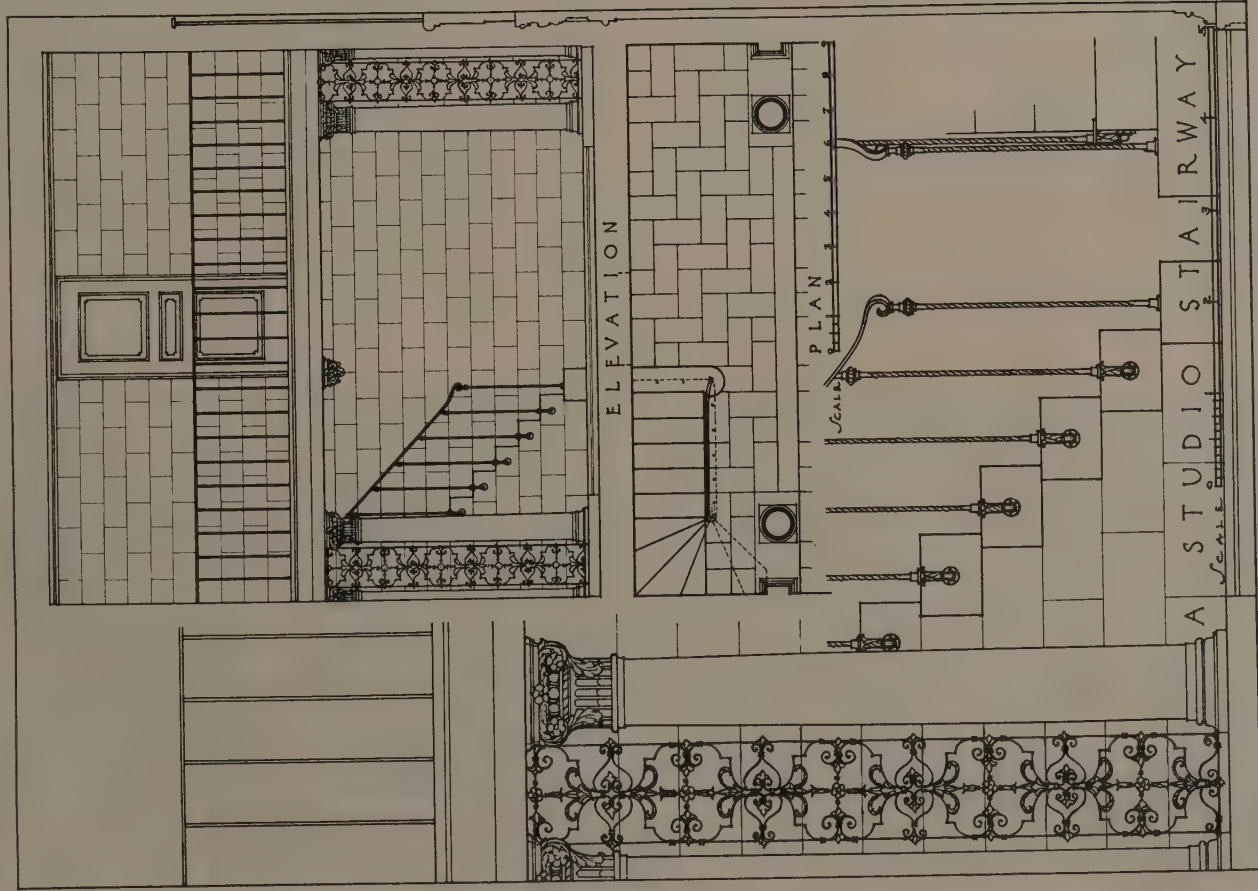
SECOND-PRIZE DESIGN

By Harold G. Schoenthal, New York



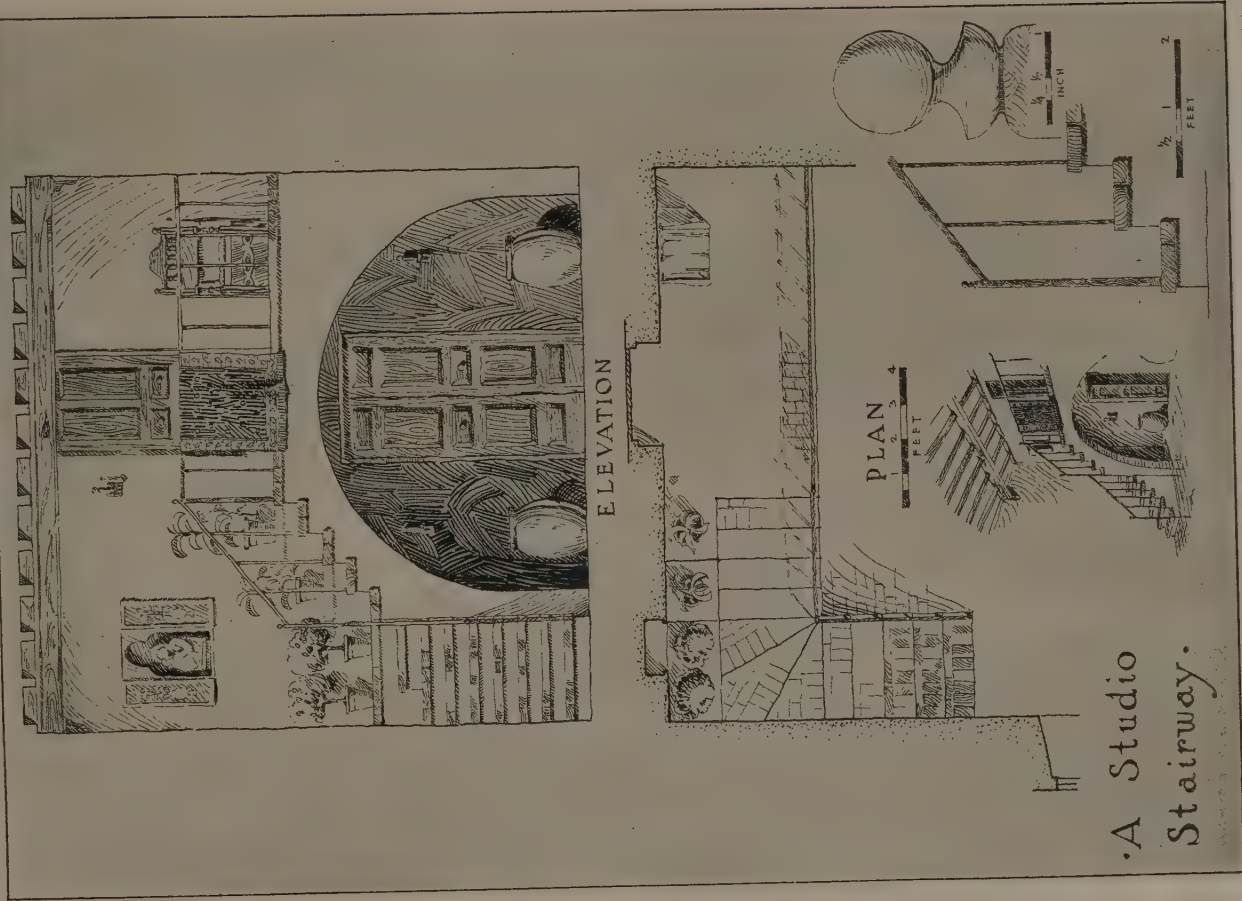
THIRD-PRIZE DESIGN

By Edmond J. Ryan, Chicago



FOURTH-PRIZE DESIGN

By Thomas A. Cresswell, Chicago



FIFTH-PRIZE DESIGN

By Edward J. Parnum, Philadelphia



ARCHITECTURE'S COMPETITIONS

GENERAL CONDITIONS

The Jury of Awards: H. Van Buren Magonigle, President, New York Chapter, A. I. A. Edmund S. Campbell, Dean, Beaux-Arts Institute of Design. Henry H. Saylor, Editor of ARCHITECTURE.

Compensation to Competitors: ARCHITECTURE will pay to the winners of each competition, immediately after receiving the jury's judgment, the following:

For Design placed First...	\$150.00
" " " Second..	75.00
" " " Third...	30.00 in books*
" " " Fourth..	20.00 in books*
" " " Fifth...	10.00 in books*

*These to be chosen from the Art and Architectural Catalogue of Charles Scribner's Sons.

In addition to the above awards, which are made for each one of the monthly competitions, ARCHITECTURE will present three medals at the end of the twelfth competition, one of gold, one of silver, and one of bronze, to the three designs chosen from among the monthly winners which, in the opinion of the jury, show the greatest merit in design.

Eligibility: Architects and draftsmen are invited to enter one or all of these monthly competitions. It is *not* necessary that a competitor be a subscriber to ARCHITECTURE. A competitor may submit one or more designs in any of these competitions, but not more than one prize will be awarded to a competitor in each.

Requirements: One sheet (paper, not cardboard) only is required for the presentation of each design. It must be exactly of the size indicated in the sketch

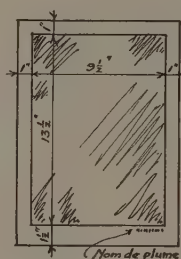


diagram herewith, the border margins left blank excepting for the nom de plume or other identifying device. The drawing may be in line or wash, or both, but if in wash it should be in monochrome, preferably in India ink. Indicate all scales graphically. To preserve the anonymity of drawings, each is to be signed with a nom de plume which is also written upon the outside of a blank white envelope containing the competitor's name and address.

Drawings may be sent flat or rolled, and are to be addressed "ARCHITECTURE, Competition No. —, 597 Fifth Ave., New York, N. Y." The closing times given below are for receipt of entries at the office of ARCHITECTURE, rather than the closing by postmark date—this being necessary in order that judgments can be made and published in the following issue of the magazine. In justice to all, no questions regarding the competitions can be answered.

Drawings awarded prizes become the property of ARCHITECTURE for publication and for any other use at the publishers' discretion. Other drawings will be returned to the senders only if postage is included.

Programmes for Competitions V, VI, and VII

Competition V. Closing August 1, 1927, at noon.

Subject: A leaded-glass window in the library of an American gentleman. The design to have a geometrical-pattern field. Window is 4 feet 6 inches by 7 feet, inside jamb size, vertically divided into two leaves, opening out. Show elevation and section at 1½-inch scale.

Competition VI. Closing September 1, 1927, at noon.

Subject: Flanking an entrance portico of simple Georgian type, it is required to design trellises of wood, either secured vertically between the outer posts and pilasters or leaning against the entablature from the

ground. Floor of portico 7 inches above grade; outer posts, 7 inches square, 8 feet 6 inches high; width of front, c. to c., 7 feet 4 inches; projection, wall to centre of posts, 3 feet 8 inches. Show half front elevation, side elevation, and plan, at ¾-inch scale, with perspective.

Competition VII. Closing October 3, 1927, at noon.

Subject: An altar in a Roman Catholic chapel, designed in the period of the Italian Renaissance. The chapel width is 30 feet; the altar, without approaches, not over 12 feet in width. Show altar, furnished, in front and side elevations at ¾-inch scale, with plan. Compose the sheet so as to fill as much as possible of the available space with larger-scale details.



The Architectural Clinic

AGENDA



IT has seemed wise to devote the page this month to a look ahead, setting down subjects upon which a wider dissemination of knowledge is eminently desirable. It cannot be too strongly emphasized that this page is not intended to offer *ex-cathedra dicta* from the editors, nor, indeed, from any one else. It is designed as a convenient place for the interchange of ideas, methods, short-cuts, tried-and-true ways of accomplishing satisfactory results—these ideas and the expression of the same being those of our professional readers who are willing to give information in order that they may receive more.

To save time and to focus the discussion, therefore, we are printing below a list of subjects that suggest themselves as particularly pertinent for discussion. This list should by no means be taken as limiting either questions or satisfactory solutions of puzzling details. If the particular nut that you have either cracked or found baffling is not suggested here, send it or its solution along for the benefit of others still in the dark.

WOOD

(1) Treatment necessary to secure an aged and weathered effect, both interior and exterior.

(2) Floors; method of securing wide oak or pine flooring without danger of warping; desirable means of finishing, as waxing and oiling instead of shellac and varnish.

(3) Interior walls of matched sheathing in the early Colonial manner; their finish, profiles of beads, elimination of heavy base, etc.

(4) Beamed ceilings; employing heavy joists as 3 by 12's and having lower half exposed instead of "fake" beams; surfacing by adzing, oiling, waxing, etc.; using materials other than plaster between joists, and painting.

(5) Muntins; width of Colonial examples, New England types; clumsy effect when too wide.

FIRE-PROOF WOOD

Increasing usage in public and commercial buildings with more strict fire regulations; its limitations and its possibilities; description of "fire-proofing" process.

BRICK

Use of moulded brick, foreign and domestic; cost of securing desired profiles; desirability for certain effects differing from those obtainable in stone or terra-cotta.

CHIMNEY CAPS

Methods of securing in place when made up of brick, terra-cotta or stone units; likelihood of moisture getting in mortar joints and through expansion and contraction causing loosening of parts, thus necessitating the building of expensive scaffolding to replace cap; stone caps in one piece and cement caps reinforced.

OFFICE AND COMMERCIAL BUILDING PROBLEMS

(1) Value of large entrance lobby running through two floors in height.

(2) Importance of immaculate elevator cabs, operators, corridors; adequate lighting of office-floor corridors, artificially and by borrowed light.

(3) Elevator cabs; difficulty of maintaining pleasing appearance of bronze unless finger-marks are removed daily; advantages and disadvantages of wood cabs; value of rail or its elimination; value of overhead fan for ventilation as compared with more usual grilles at side of car near top.



A suggestion of the variability of muntin widths. The illustrations, from left to right, show muntins from the Read house, New Castle, Del.; an old house in Shaftsbury, Vt.; Independence Hall, Philadelphia; and a modern example of extreme width

Significant Sentences from the A. I. A. Convention

"No truly great architecture ever was or can be except it be a complete fusion of all the arts into a perfect harmony, each dependent upon the other, the whole inspired at its conception by the appropriate beauty each holds ready for the enrichment of every other and of the whole."

MILTON B. MEDARY, President,
in Opening Address.

"Architecture is not only the work of the architect. However important and necessary, and of course that is something we can't dispute, the architect is, in his functions the leader in the assembling together of all these contributing arts of design, he still is and he always must be dependent upon them. . . .

"If we mean what we say, if we mean that the landscape architect, the mural painter, the sculptor, and the craftsman, are necessary to the production of architecture, then we say why shall not the American Institute—let me say it now—change itself from being the American Institute of Architects and become the American Institute of Architecture?"

C. GRANT LA FARGE, New York.

"With the great monument of our late departed brother, Mr. Bacon, the Lincoln Memorial, the water approach and all that, it seems to me was purely architectural, and if we are going to have great architects, they must dominate the cardinal lines which focus upon their monuments."

ALBERT KELSEY, Philadelphia.

"Mr. Lee Lawrie became so much a part of Mr. Goodhue's work that it seems almost impossible to consider Mr. Goodhue's work without considering Mr. Lee Lawrie's work in connection with it; in fact, so much is that the case that it seems almost as if the work of those two men merged one into the other."

WILLIAM JONES SMITH, Chicago.

"Among the craftsmen there is an impression that the architect wants to be considered a superior being who has to be approached with fear and trembling. For that reason many craftsmen stay away from them. Unless you bring back that feeling of good fellowship, that feeling that did exist when they did the great work from which we get our inspirations to-day, it will be very difficult to work up any strict rules and regulations by which they may work together."

LORENTZ KLEISER, New York.

"When we therefore consider the artistic side of our profession, let us not forget the great wealth which accrues to its members through the opportunity offered for concentrated self-education and the development of imaginative inspiration through the medium of the much maligned and fervidly denounced competition."

COMMITTEE ON COMPETITIONS;
Charles Butler, Chairman.

"We believe that the trouble which is caused to our society by the Fellowship distinction outweighs any possible gain or advantage."

RICHARD E. SCHMIDT, Chicago.

"If we don't take some means of showing our appreciation as an organization, as a professional body, for particularly distinguished service, it seems to me we might as well go out of business."

J. MUNROE HEWLETT, New York.

"The use of the free engineering service which is offered by manufacturers and jobbers of building materials, appliances, and equipment is accompanied by an obligation which may become detrimental to the best interest of the owner."

COMMITTEE ON ETHICS;
Abram Garfield, Chairman.

"It is true that the conditions fixed by statute have greatly reduced the numbers entering the practice of architecture as principals. In some states the total number engaged in practice has materially lessened from year to year. The standard of practice is higher and grows higher each year."

COMMITTEE ON REGISTRATION LAWS;
William P. Bannister, Chairman.

After some hours of discussion as to the Octagon property:

"This matter has been discussed at several conventions. It has been studied by different groups of architects for six, eight, or ten years. We have had them go over and over this ground, and in each convention at which we have discussed the matter we have carefully upset all that has been done before. I think that the Committee has now received the concentrated wisdom of this convention and that we may safely leave it to the Committee and the Directors."

HENRY H. KENDALL, Boston.
—after which two more hours of discussion followed.

"We will acknowledge willingly any differentiation among the arts as to material, as to process of production, as to need or purpose, but certainly there are not sheep and goats among them. There is no differentiation which makes it possible to regard as sacrosanct, to put on a pedestal, certain things to be called 'fine' and to regard others as only so much goods sold across the counter. Design is the test of merit."

RICHARD F. BACH, New York.

"The architect hears everywhere: Let us have a new architecture, an American architecture; let us have done with the dealers in classic and mediæval forms; let us try something truly American! . . . This is plain sophistry. Just as well say: Let us have an entirely new written language, as well as the physical one; let us stop using the words used by Shakespeare and express our thoughts by sounds never heard before; and let us be entirely individual and no two of us use the same sounds!"

MILTON B. MEDARY, President.

ARCHITECTURE'S PORTFOLIO OF IRON RAILINGS



Subjects of Previous Portfolios

DORMER WINDOWS

November, 1926

SHUTTERS AND BLINDS

December, 1926

PANELLING OF THE ENGLISH TYPES

January, 1927

STAIRWAY DETAILS (GEORGIAN, EARLY AMERICAN, ETC.)

February, 1927

STONE MASONRY TEXTURES

March, 1927

ENGLISH CHIMNEYS

April, 1927

FANLIGHTS AND OTHER OVERDOOR TREATMENTS

May, 1927

TEXTURES OF BRICKWORK

June, 1927

SUBJECTS IN PREPARATION FOR FUTURE ISSUES

Beamed Ceilings
Built-in Bookcases
Chimney Tops
Circular and Oval Windows

Colonial Balustrades
Cornices of Wood
Decorative Plaster Ceilings
Door Hardware

English Fireplaces
Floors of Wood
Gable Ends
Garden Gates

Palladian Motives
Rain-conductor Heads
Stucco Textures
Treillage



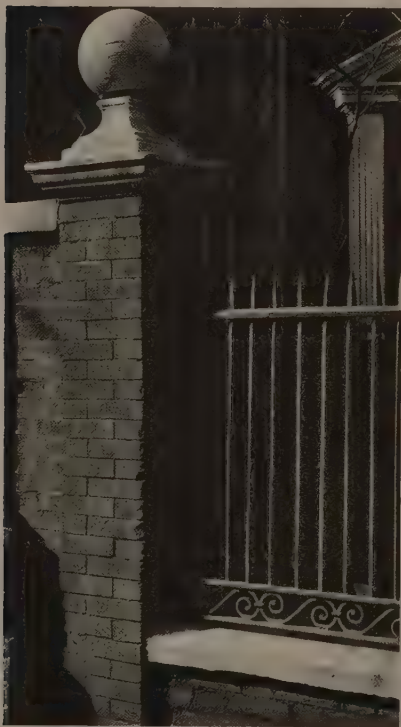
THOMAS HASTINGS



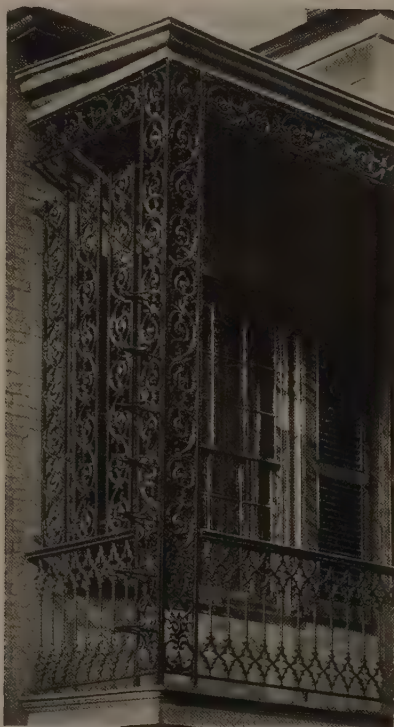
FREDERICK J. STERNER



CRAM & FERGUSON



OLD CHRIST CHURCH, PHILADELPHIA

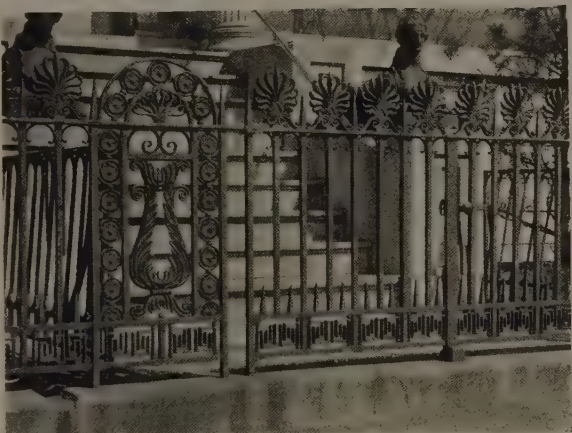


OLD HOUSE IN NEW ORLEANS

ENGLISH, EIGHTEENTH CENTURY,
PENNSYLVANIA MUSEUM



MODERN, PHILADELPHIA



OLD, NEW YORK



STERNER & WOLFE



OLD, WILLIAMSBURG, VA.



OLD, NEW YORK



OLD, NEW YORK



ENGLISH, EIGHTEENTH CENTURY. COURTESY OF PENNSYLVANIA MUSEUM



WARREN,
KNIGHT &
DAVIS



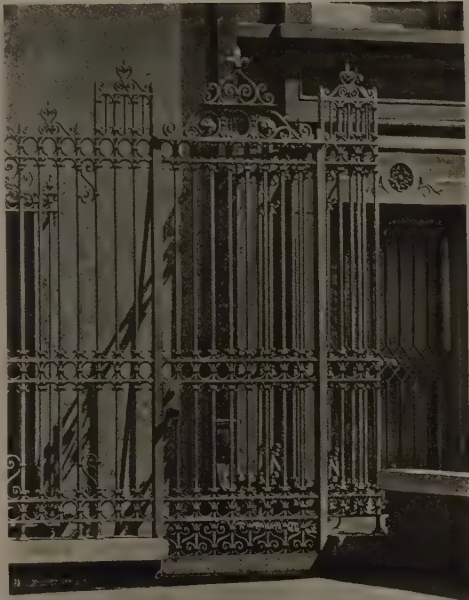
READ HOUSE, NEWCASTLE, DEL.



STERNER & WOLFE

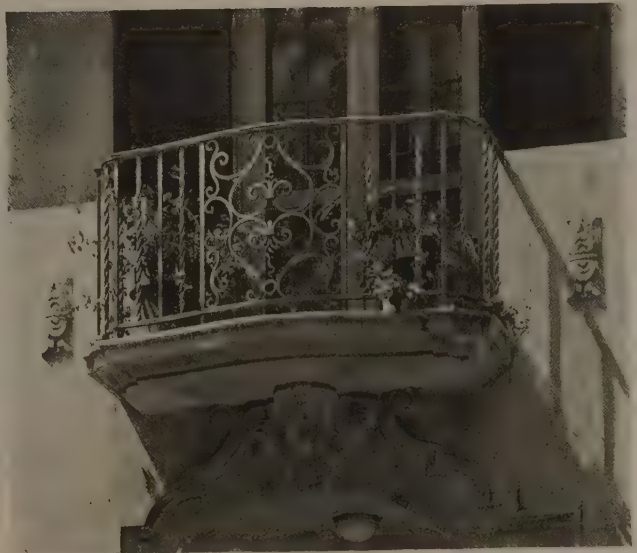


CARRÈRE & HASTINGS



DUTCH-FLEMISH, SIXTEENTH CENTURY, IN METROPOLITAN MUSEUM OF ART

FREDERICK J.
STERNER



MOISE GOLDSTEIN



RONDA, SPAIN



NELSON & VAN WAGENEN



LEWIS BOWMAN



ADAMS & ADAMS



OLD, NEWCASTLE, DEL.



ON SOUTH THIRD STREET, PHILADELPHIA



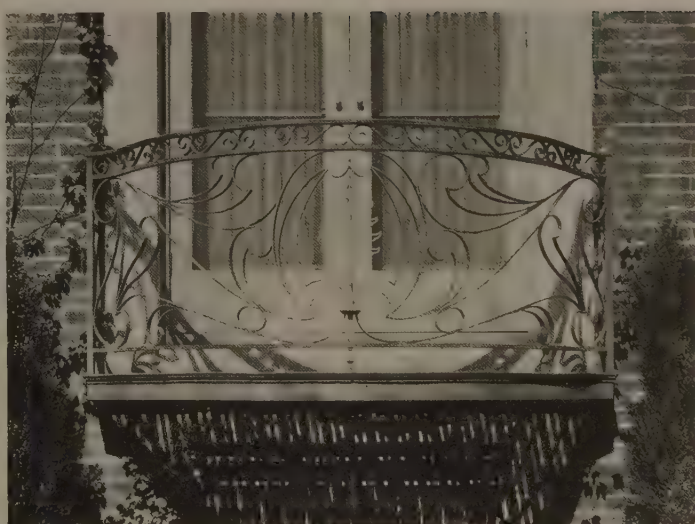
FLORENCE: TORRE DEI GIROLAMI



WALLIS & GOODWILLIE



DUNCAN LEE



WARD BROWN



MODERN CITY HOUSE



PARK & MORGAN



FRANCIS A. NELSON



STEPHEN GIRARD'S WAREHOUSE, PHILADELPHIA



CLINTON MACKENZIE



ITALIAN, SEVENTEENTH CENTURY,
IN
METROPOLITAN
MUSEUM OF
ART



JOHN MEAD HOWELLS



DELANO &
ALDRICH



DELANO &
ALDRICH



OLD, PHILADELPHIA



CONGRESS HALL, PHILADELPHIA



CHARLES A. PLATT

CONTACTS

DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES

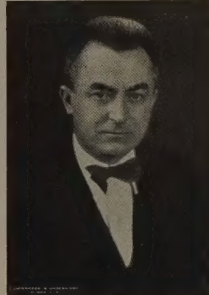
Attempting to Build with Black Brick

By Raymond M. Hood

WHEN a new idea is instilled into architecture which requires an unusual use of a building material, then it is that the troubles begin in the architect's co-operation with the manufacturer. Precedent is the latter's watchword. The average producer wants to use the material he already has on hand, and believes a departure from stock is radical and to be looked at askance.

The owners and myself were in accord that the American Radiator Building should be built of black brick; we wanted to make the building black so that the walls would tone in with the window-openings, and produce a mass that would not give the usual impression that so many buildings have of being a sieve, a sort of waffle stood on end. The black and gold in the building is a classic combination that has always been good, and, of course, the black doesn't require the cleaning that a lighter color would.

I needed 600,000 brick, and I needed them in a hurry. We went to several English concerns, but found that they could supply only 10,000 brick a month, whereas we had to have 150,000. Next we went to terra-cotta manufacturers and discussed with them the likelihood of making black terra-cotta brick 8 by 12 inches. Production on this, they assured me, would have to be done by hand. This would delay matters too long, so I suggested that such an order might justify the installation of special machinery, but they did not agree with me. In fact, they seemed to want to avoid the job, and finally did by giving me a price so high that their worries were over.



© Underwood & Underwood
Raymond M. Hood

Before long it was well aired in building fraternities that black brick was to be used, and from then on salesmen galore and their brick began pouring into my office. There were pink brick, red brick, gray brick, every shade in the rainbow save black.

"Black brick is what I want," I assured them.

"What about this nice blue brick, Mr. Hood?" one salesman would ask.

"Black; black, damn it; that is what I want."

"Don't you mean dark red?" would be the reply.

A very clever fellow from the construction company which was erecting the building scoured New York to find exactly the color of brick we wished used. At last he took one brick man around to the Bush Building and, pointing up at the black brick in the shadow stripes on the side, showed him what we wanted. "Oh!" said the brick man, "you want a black brick. We made that brick and if *that* is what you want we can give it to you." So finally the idea of black brick was communicated and the brick was made.

A new idea, an unusual use of the material, quite often finds the manufacturer groping in the dark. Instead of attempting to meet the requirements of the architect, he tries to sell him what he has and then adds insult to injury by telling him that that is what he wants anyway, or sometimes even that that is what Mr. McKim or Michael Angelo would want. As one of my friends who makes a building product told his salesmen: "Give the architect any color he asks for, so long as it is gray."

My Appeal to Manufacturers

By Harvey Wiley Corbett

MY appeal to manufacturers—if I have any message to carry at all—is that they stress more and more in their work two factors: first, the factor of beauty, and, second, the factor of truth in the use of a material. They should in every way endeavor to give the architect the information which will enable him to fit his design to their

work, and suggest to him, if they can, how he can increase the beauty, because when the job is done, no matter how durable or how permanent it may be or how sordid the owner who paid for it may be, the thing that he is proud of is the beauty of his job—above everything else.

You can go to any man's house, any man's build-

ing, and what does he tell you about it? He points out those elements of beauty first. He may come along later and show that it is a practical arrangement, that the roof doesn't leak, that the windows let the light in, and so on, but he first points to the beauty. Those special features which the owner will point out are those very things which the producer is creating. They are those bits of a grille in a doorway, a fine bronze casting with a lamp, or some other feature of character of which he is particularly proud. It is that factor which should be stressed.

The other factor is that of truth in the use of material. Architects, of course, are always in this position. They are first selling the job and they have to take perhaps two attitudes of mind, the attitude of the salesman, to begin with, and then the attitude of the builder and designer afterward.

Of course, when you are selling the job, you paint as glowing a picture as possible and you say: "We have ornamental iron here and we will have a fine bronze door there, and we will have all these elements in the building."

The owner says: "Isn't that going to cost more?"

We always say: "Yes, a little more, possibly, but it is worth it."

Then when the estimates come in, we are sometimes forced, in order to carry out even a semblance of this design, to use substitutes for those expensive materials.

But I can assure you that the architectural profession to-day is trying by every method possible to get away from substitutes of any kind; to try to use materials, even if they have to be simpler in design, even if they have to be machine-made, even if they have to be selected from stock, which are genuine in themselves.

If I were a manufacturer, I would fight every effort toward substitution which would affect my business. If I am making a bronze casting, let it be a bronze casting, not a piece of something else painted with bronze paint. Simplify, if you will, eliminate ornament, do anything, but let's be genuine, if nothing else.

Let us approach our problem always from that angle—better appearance and durability and genuineness. They are three factors which we should all come together on, and I am sure that in that combination we can produce work that is worth while.

I am reminded of when I was a student in Paris. There was a certain restaurant where they served a very delicious rabbit stew. It was so popular, in fact, that great quantities of students used to go there to enjoy this rabbit stew when they could afford the price.

We sometimes had to stand in line, and we noticed one day that there were large hunks of coarse meat being brought to the rear alley—the kitchen of this place—and we were rather curious about it because they didn't serve anything of that character in the restau-

rant, so we asked the chef what he was putting this meat in for and what it was.

"Well," he said, "there has been such a demand for this rabbit stew that we have been obliged to put in just a very small substitution, and this meat you see going in is horse meat."

We were rather aghast at that and we said: "What proportion are you using of horse meat to rabbit meat?"

He said: "It is not a very great proportion; it is about fifty-fifty—one horse to one rabbit."

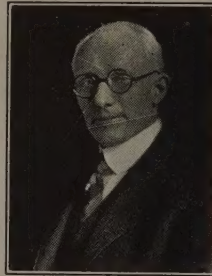
The trouble, if I might point out a trouble, in our whole design problem is that it is a little too much horse and not enough rabbit; a little too much of the practical driving force of getting more business and not enough of the vision and the imaginative and the artistic side of getting more beauty. Yet I can assure manufacturers that in the last analysis, beauty pays.

In selling architecture I found after some years of experience that I can actually sell the commercial value of a beautiful structure.

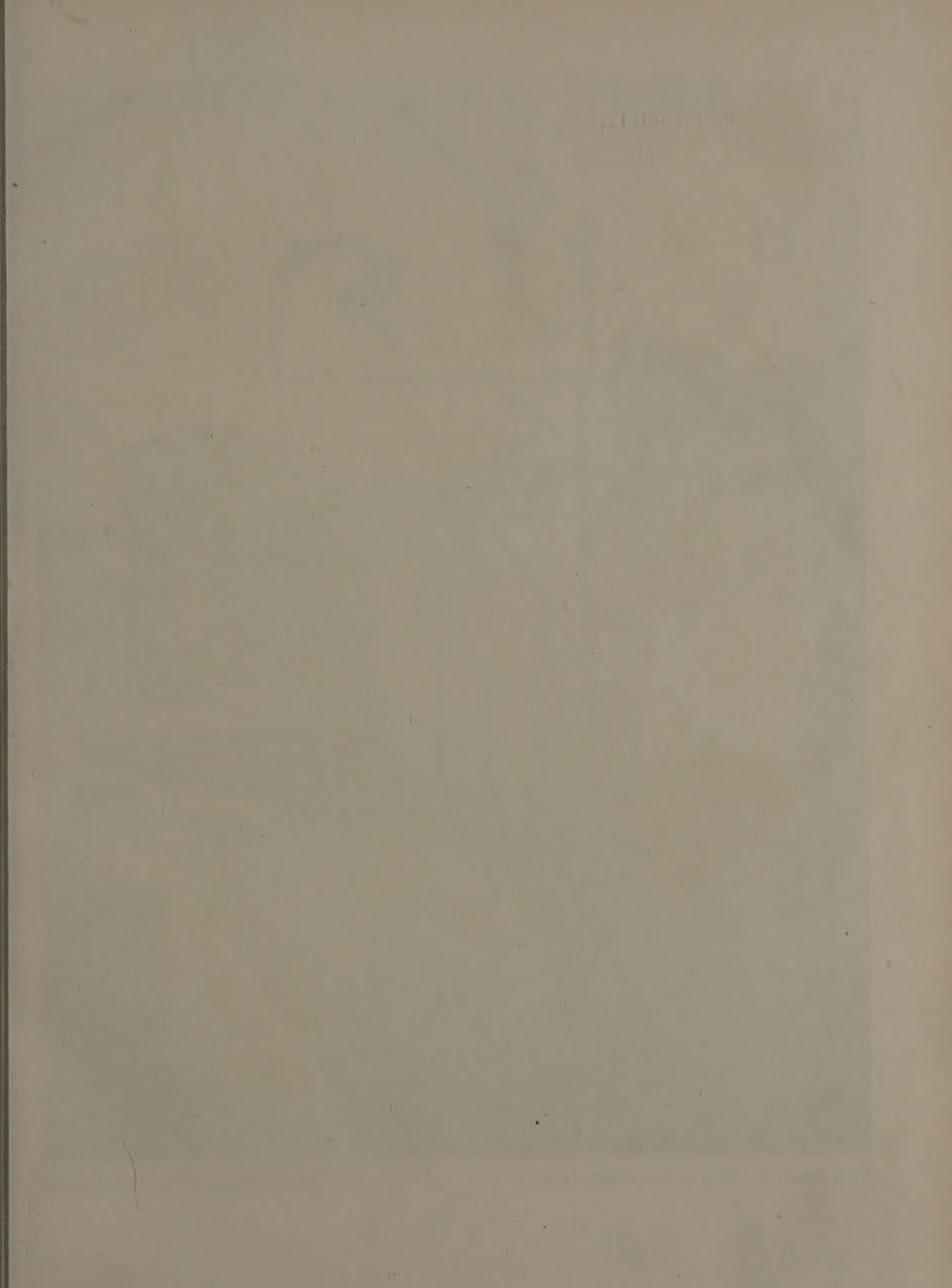
Not over two months ago I was building a loft building here in New York where cost was a vital item, where the building would be filled with the usual purposes of a loft. The owner to me seemed to be rather hard-boiled from a business angle, yet I was able to persuade that owner to sacrifice valuable window space on the ground floor of his building for the sake of stone supports, which would carry that building to the ground and make it look as though it rested on something other than glass. I also was able to persuade the same owner, instead of putting in cheap stock window-frames, to put in a carefully wrought bronze finish, not because it was more beautiful—we didn't talk beauty; we just talked the commercial value of such an appearance and he was persuaded and satisfied, and is delighted to-day. He can actually ask more rent for space on the twentieth floor of that building because he has bronze window-frames on the ground floor. That factor goes right through in our whole building work.

Just plain business, adding up the column, finding that your profits are a little greater this year than the year before, may be a satisfaction, but that in itself is not enough. Producers have the opportunity to get out of their business just as much pleasure and satisfaction as any artist who sits in the open, paints the setting sun or a distant cloud or a meadow or a bit of green; and, as you know, he gets happiness out of it in spite of the fact that he can barely earn a living in the process.

The message I have to leave with manufacturers is this, that when they have that creative faculty and that satisfaction that comes when a man produces something beautiful—the same thing that carries on the architect and the painter—achievement and happiness will follow.



Harvey Wiley Corbett





ON A STREET IN ASSISI, AN IRONWORKER'S SIGN

From a photograph by Paul Hermann